

International Conference on

# ENVIRONMENTAL MICROBIOLOGY & MICROBIAL ECOLOGY

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# ECOLOGY, ECOSYSTEMS & CONSERVATION BIOLOGY

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## Potential threat of New Delhi Metallo-Beta-Lactamase-1, multi drug resistant and extensive drug resistant (XDR) to achieve the millennium development goals (MGD's)

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There are  $\geq 2'000'000$  people get resistance against antibiotics every year in United State. CDC has graded bacterial resistance as worst reason of deaths and hospitalizations in US. The superbugs' include MDR/ XDR, *MRSA*, *CRE*, *NDM-1*, *C-Diff*, *Neisseria gonorrhoea*, *CRE (Carbapenem resistant Enterobacteriaceae)* and *VRE (Vancomycin-resistant Enterococcus)* are most common threats for successful control of infectious diseases. Antimicrobial resistance is a serious threat that induced new resistance mechanics, emerged and spread throughout the world. Approximately 450 000 new MDR-TB cases were identified during 2012. XDR-TB strains identified in 92 different countries. Worldwide mostly the resistance seen in pneumonia, urinary tract infections and bloodstream. The expansion of worldwide travel and trade has prompted the transmission of resistant superbug strains. The resistance is an evolutionary and natural phenomenon, that may be activated and transmitted to next generation. Inappropriate use (overuse, underuse or misuse) of antimicrobials drives the development of resistance. Appropriate pharmaceutical care may potentially reduce the resistance. The sub-therapeutic regimens in veterinary practice may produce and transmit resistant to humans. Substandard clinical practice and poor infection control may produce resistant superbugs. The admitted patients are good reservoirs, carriers and source of infection transmission. The current antibiotics are losing their efficacy against resistant superbugs. Moreover, a declined trend to investigate for new antibiotics, insufficient research to collect the information of resistant strains and unavailability of vaccines may posed potential threats. Moreover, the hazards from resistance superbugs are increasing and demanded an urgent action. The multifarious problems of resistance superbugs need a collective effort. Thus, WHO is calling for prompt action to stop the transmission of antibiotic resistance by introducing a 6 point policy package. Thus, in September 2000, the United Nations Millennium Declaration was signed. Eight major MDG's goals designed by the United Nations (UN). The UN members were agreed to attain these objectives by the year 2015. The world leaders were convinced to fight against poverty, hunger, environmental degradation, disease, discrimination against women and illiteracy. The designing, approval and enforcement of appropriate drug regulations may potentially help to optimize the pharmacotherapy and mitigate the emergence of antibiotic resistance. A prospective jurisprudential support is necessary to assure standard pharmaceutical care. The pharmacy professional and drug experts are expected to deliver their exact scientific and professional role of prescription reviewing, patient counseling, therapeutical drug monitoring, bio-safety, clinical services and pharmaceutical care instead of current irrelevant, non-technical, administrative and clerical work. Appropriate clinical and pharmaceutical care will minimized the resistance against. The pharmacovigilance, ADR's, pharmacoeconomics and pharmacometrics should also be implicated to achieve the MDG's in SEA countries.

### Biography

Taha Nazir has multiple expertise with advanced knowledge of microbiology, pharmacology, and molecular biology. He was awarded the PhD (Microbiology) degree in 2010. Whereas, he got his post-graduation in Pharmacology from University of Agriculture and graduation in pharmacy from the University of Punjab. He has more than twenty year's research, academic and professional experience. Additionally, his research interest includes the drug designing, novel formulations, cell pathology, epidemiologies, and biotechnology. Moreover, He has worked at prestigious research, academic and professional including Associate Professor, Associate Dean (Pharmaceutical Sciences), Chairman Board of Directors and President (Pharmacist Federation). He has worked with ICDDT Inc., Saskatoon SK, Drug Store Pharmacy Calgary AB, Medicine Shoppe Pharmacy Saskatoon SK, and the University of Lahore and the University of Sargodha. Additionally, he has presided, chaired and participated in so many scientific/ academic/ professional conferences/ workshops and/ or training sessions. Currently, He is associated with ICDDT Inc. Canada as Head - Microbiology, Chemical Pathology and Molecular Biology Research Group, ICDDT Inc., Canada. Moreover, he performs a variety of role to develop partnerships between academic and practical skills. He has compiled six different books entitled Applied Pharmacotherapy, Applied Molecular Cell Biology, Clinical and Pharmaceutical Management of Diseases and Practical Manual of Pharmacology & Therapeutics. He has authored more than 30 research articles published in reputed and accredited scientific journals.

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