

Geetanjali M. Litake (M.Sc., Ph.D.)



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Residence: Pune, Maharashtra, India

Key Competencies

- Accomplished to design and execute research projects
- Experienced postgraduate teacher
- Molecular diagnosis of infectious diseases
- Hospital diagnostics (Microbiology Laboratory)
- Extensive experience in antimicrobial resistance studies of hospital acquired infections
- Proficient in most of the techniques practiced in basic and clinical Microbiology, Immunology, Molecular Biology and Genetic Engineering

Career History

- Assistant Professor (From 2/07/2018 till date)
Department of Biotechnology
PE Society's Modern College of Arts, Science and Commerce, Ganeshkhind, Pune, India
- Assistant Professor (29/09/2010 to 2/07/2018)
Department of Biotechnology
PE Society's Modern College of Arts, Science and Commerce, Shivajinagar, Pune, India
- Microbiologist (Dec.2009 - June 2010)
Poona Hospital and Research Center, Pune, India
[Responsibility- Hospital Diagnostics -Microbiology laboratory]
- Microbiologist (Feb. 2008 - Nov. 2009)
Molecular Diagnostic Center, Pune, India
[Responsibility-Diagnosis of viral, bacterial and fungal infections using Real-Time PCR]

Other Affiliation

- **Member Board Of Studies (BOS-Biotechnology)** of Savitribai Phule Pune University
- Recognized **Ph.D. Guide** of Savitribai Phule Pune University in the subject **Biotechnology**
- Microbiologists Society of India (MBSI)- Life member

Educational Development

- Ph.D. (Basic Medical Sciences [Medical Microbiology]) [2009]
School of Basic Medical Sciences, University of Pune, Pune, India.

Title of Ph.D. Thesis:

"Studies on β -Lactam resistance in *Acinetobacter* isolates recovered from trap secretions with special reference to Extended-spectrum β -Lactamase"

Work highlights:The research was directed to study an extended-spectrum β -Lactamases (ESBL) mediated β -Lactam resistance in *Acinetobacter* clinical isolates including epidemiology and molecular characterization.

- M.Sc. (Medical Microbiology) [1996]
B.J. Medical College, University of Pune, Pune, India.

The course involved training in all techniques used in clinical microbiology including Bacteriology (Aerobic and Anaerobic), Immunology, Virology, Mycology and Animal experiments, for the diagnosis of infectious agents.

Title of M.Sc. Thesis: "Evaluation of a biphasic medium for primary isolation of *Mycobacteria*".

Work highlights: The biphasic medium composed of Middlebrook's media is compared for the efficacy with conventional L-J medium for primary isolation of *Mycobacteria* from clinical samples.

- B.Sc. (Microbiology) [1992]
Abasaheb Garware College, University of Pune, Pune, India

Computer Education

- Advanced Diploma in Computer Software System Analysis and Applications (ADCSSAA) [2001]
(Naralikar Institute, Pune, affiliated to Maharashtra Technical Education Board, Maharashtra, India)
- Diploma in C and C++ programming (IMLD, Dnyanprabodhini, Pune)

Research accomplishment

- **Number of Ph.D. students registered: 02**
- **Patent Filed: 01**
- **Research Project completed:**
Principal investigator of completed independent research project entitled '**Evaluation of environmental dissemination of Multi-Drug resistant *Staphylococcus* species**' funded by BCUD, Savitribai Phule Pune University, for the period 2014-2016 (Rs.1.8 Lakh)
- **Doctoral research** (Sept. 2002-Mar. 2009)
Studies on *Acinetobacter* clinical isolates to evaluate their antibiotic resistance at molecular level, in the context of Extended Spectrum β -Lactamases.
School of Basic medical Sciences and Division of Biochemistry, University of Pune, Pune, India
- **Project Assistant** (Apr. 2005-Mar. 2007)
UGC sponsored project entitled, "Molecular characterization of urinary isolates of *Acinetobacter*".
Division of Biochemistry, University of Pune, Pune, India
- **Junior Research Fellow** (Oct. 1997-Mar. 2000)
DRDO sponsored project on Biodegradation of TNT and RDX, entitled "Transformation of TNT and RDX by radiation, chemical and biological processes".
Division of Biochemistry, University of Pune, Pune, India
- **Research project at Masters** (July 1992-Dec. 1995)
Masters in 'Medical Microbiology', (by research).
B.J. Medical College, Pune, India

Invited Chapters published in Reference Books:

Geetanjali M. Litake. (2022) Plant-Assisted Plasmid Curing Strategies for Reversal of Antibiotic Resistance. In: Kumar V, Shriram V, Paul T, Thakur M (Eds.) Antimicrobial resistance - Underlying mechanisms and therapeutic approaches. Springer Nature. Singapore. https://doi.org/10.1007/978-981-16-3120-7_18

Publications:

- 1) **Litake GM**, Ghole VS, Niphadkar KB, Joshi SG. (2015) Phenotypic ESBL Detection in *Acinetobacter baumannii*: A real challenge. *Am J Infect Dis* 11(3): 48-53. [IF-0.33]
- 2) Joshi SG, **Litake GM**. (2013) *Acinetobacter baumannii*: An emerging pathogenic threat to public health. *World J Clin Infect Dis* 3(3):25-36. [Review article]
- 3) **Litake GM**, Ghole VS, Niphadkar KB, Joshi SG. (2009) PER-1 type Extended-Spectrum β -Lactamase producing *Acinetobacter baumannii* clinical isolates from India. *Int J Antimicrob Agents* 34(4):388-9. [IF-3.59]
[Sequences - Genbank Accession numbers: EU840995 - EU841004 and EU921231 -EU921235]
- 4) Joshi SG, **Litake GM**, Ghole VS, Niphadkar KB. (2006) Clinical and demographic features of infection caused by *Acinetobacter* species. *Indian Journal of Medical Science* 60(9): 351-360. [IF-1.67]
- 5) Satpute MG, Telang NV, **Litake GM**, Niphadkar KB, Joshi SG. (2006) Prevalence of cryptococcal meningitis at a tertiary care center of western India (1996-2005). *Journal of Medical Microbiology* 55: 1301-1302. [IF-2.5]
- 6) **Litake GM**, Joshi SG, Ghole VS. (2005) TNT biotransformation potential of the clinical isolate of *Salmonella typhimurium* - potential ecological implications. *Indian Journal of Occupational and Environmental Medicine* 9(1): 29-34.
- 7) Joshi SG, **Litake GM**, Ghole VS, Niphadkar KB. (2004) Fluoroquinolone resistance from a transferable plasmid in *Acinetobacter calcoaceticus*. *Indian Journal of Pathology & Microbiology* 47(4): 142-3. [IF-0.6]
- 8) Joshi SG, **Litake GM**, Ghole VS, Niphadkar KB. (2003) Plasmid-borne extended-spectrum β -lactamase in clinical isolates of *Acinetobacter baumannii*. *Journal of Medical Microbiology* 52: 1125-1127. [IF-2.5]
- 9) Joshi SG, **Litake GM**, Niphadkar KB, Ghole VS. (2003) Multi-Drug Resistant *Acinetobacter baumannii* from a Teaching Hospital. *Journal of Infection and Chemotherapy* 9 (2): 187-190. [IF-1.632]
- 10) Jagtap SB, Joshi SG, **Litake GM**, Ghole VS, Kulkarni SB. (2000) C-3 Substituted Lawsonmonoximates of Holmium (III): Synthesis, Characterization and Antimicrobial Activity. *Metal-Based Drugs* 7 (3): 147-150.

Date: July 2024

Place: Pune (Maharashtra, INDIA)

Dr. Geetanjali M. Litake

CV –Dr. Geetanjali M. Litake