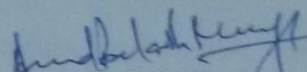


DECLARATION

I, **Anand Prakash Maurya** bearing Registration No. **Ph.D./2157/2012** dated **26.09.2012**, hereby declare that the subject matter of the thesis entitled **“Molecular characterization of Extended Spectrum Beta-Lactamases and their genetic environment”** is the record of work done by me and that the contents of this thesis did not form the basis for award of any degree to me or to anybody else to the best of my knowledge. The thesis has not been submitted in any other University/Institute.



Anand Prakash Maurya

Place: *Silchar*

Date: *11/2/2015*

Registration No.: Ph.D./2157/2012 Dated 26.09.2012

Department of Microbiology

Assam University,

Siulchar-788011

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Abbreviations

MRSA	Methicillin resistant <i>Staphylococcus aureus</i>
PBP	Penicillin binding protein
FDA	Food and drug administration
DHP-I	Dihydropeptidase-I
DBO's	Diazobicycloctanes
NaCl	Sodium chloride
EDTA	Ethidium bromide tetra acetic acid
MBL	Metallo β -lactamase
IRT	Inhibitor resistant TEM
JIPMER	Jawaharlal Institute of Postgraduate Medical Education and Research
DDST	Double disk synergy test
PCDDT	Phenotypic confirmatory disk diffusion test
CLSI	Clinical laboratory standard institute
ATCC	American type culture collection
Omp	Outer membrane porin
MIC	Minimum inhibitory concentration
PCR	Polymerase chain reaction
RFLP	Restriction fragment length polymorphisms

SSCP	Single stranded conformational polymorphisms
LCR	Ligase chain reaction
SNP	Single nucleotide polymorphisms
MLST	Multi locus sequence typing
PFGE	Pulsed field gel electrophoresis
Rep	Repetitive extragenic palindromes
ERIC	Enterobacterial repetitive intergenic consensus
ICU	Intensive care unit
HCW	Health care worker
NICU	Neonatal intensive care unit
LR	Labour room
STs	Sequence types
ORFs	Open reading frames
IS	Insertion sequence
HGT	Horizontal gene transfer
ISCR	Insertion sequence common region
CS	Conserved sequence
IMU	Integron mobilizing unit
OPD	Out patient department
ENT	Eye Nose Throat

TB	Tuberculosis
FOX	Cefoxitin
CPD	Cefopodoxime
CRO	Ceftriaxone
FEP	Cefepime
IPM	Imipenem
MEM	Meropenem
ATM	Aztreonam
AMK	Amikacin
SXT	Co-trimoxazole
GEN	Gentamicin
CIP	Ciprofloxacin
TGC	Tigecycline
CLED	Cystine lactose electrolyte deficient agar
MR-VP	Methyl Red-Vogues Proskauer
TSI	Triple sugar iron
O/F	Oxidative fermentation
CFU	Colony forming unit
TBE	Tris borate EDTA
LB	Luria Bertani

SOC	Super Optimal broth with Catabolite repression
CLRW	Clinical laboratory reagent water
TE	Tris EDTA