

B. THESIS DETAILS(Ph.D)

1. VETERINARY MICROBIOLOGY

Sl No.	Title of Thesis	Name of the Student	Year of Completion	Outcome
Animal Species: Pig				
Category: Surveillance and monitoring of diseases and antimicrobial resistance				
1	Analysis of Multidrug Resistance genes in <i>Escherichiacoli</i> Isolates from Pigs of North-Eastern India	Dr. R. Mandakini Devi	2015	• Antimicrobial resistance profile of <i>E. coli</i> in pigs of entire NER India established. • Major ESBLs and non-ESBLs resistance associated genes in <i>E. coli</i> determined. • Antibiotic prescription pattern for resistant <i>E. coli</i> in animals developed.
2	Detection and Molecular Characterization of Enteric Bacterial and Viral Pathogens of Piglets in North Eastern States (Manipur, Meghalaya, Mizoram and Nagaland) of India	Dr. Hosterson Kylla	2018	• <i>Picobirnavirus</i> first time reported in pigs associated with piglet diarrhoea. • Prevalence of Rotavirus in piglet diarrhoea established. • Association of virulent <i>E. coli</i> and <i>Salmonella</i> with diarrhoea in piglets established. • Two new serovars of <i>Salmonella</i> first time detected in India.
3	Existence and transmission of antimicrobial resistance and virulence genes of <i>E. coli</i> between man, animal and environment in North Eastern States (Assam, Meghalaya, Manipur and Mizoram) of India	Dr. Lalhrupuii	2017	• The drug resistant bacteria and their interaction among human, animals and environment are established in NER states. • Metallo-betalactamase carrying <i>E. coli</i> detected in human subjects of NER states, which are transmissible to animals through water. • Multiple virulent and AMR genes carrying <i>E. coli</i> were detected in human, pigs, poultry, sheep, goat and cattle including the common water sources of NER states.
Animal Species: Cattle				
Category: Surveillance and monitoring of diseases and antimicrobial resistance				
1	Existence and transmission of antimicrobial resistance and virulence genes of <i>E. coli</i> between man, animal and environment in North Eastern States (Assam, Meghalaya, Manipur and Mizoram) of India	Dr. Lalhrupuii	2017	• The drug resistant bacteria and their interaction among human, animals and environment are established in NER states. • Metallo-betalactamase carrying <i>E. coli</i> detected in human subjects of NER states, which are transmissible to animals through water. • Multiple virulent and AMR genes carrying <i>E. coli</i> were detected in human, pigs, poultry, sheep, goat and cattle including the common water sources of NER states.
Animal Species: Poultry and wild birds				
Category: Surveillance and monitoring of diseases and antimicrobial resistance				

1	Existence and transmission of antimicrobial resistance and virulence genes of <i>E. coli</i> between man, animal and environment in North Eastern States (Assam, Meghalaya, Manipur and Mizoram) of India	Dr. Lalhruaipuii	2017	• The drug resistant bacteria and their interaction among human, animals and environment are established in NER states. • Metallo-betalactamase carrying <i>E. coli</i> detected in human subjects of NER states, which are transmissible to animals through water. • Multiple virulent and AMR genes carrying <i>E. coli</i> were detected in human, pigs, poultry, sheep, goat and cattle including the common water sources of NER states.
Species: Human				
Category: Surveillance and monitoring of diseases and antimicrobial resistance				
1	Molecular Characterization and Multiple Drug Resistance (MDR) patterns of Diarrheagenic <i>Escherichia coli</i> isolated from infants and children of Aizawl district, Mizoram	Dr. C. Karuppasamy	2018	• Diarrhoeagenic <i>E. coli</i> detected among the young children of Aizawl, Mizoram. • Multiple virulence associated gene were detected in the pathogenic isolates from young children. • Combination of virulence and AMR associated genes were detected in same isolates recovered from young children.
2	Existence and transmission of antimicrobial resistance and virulence genes of <i>E. coli</i> between man, animal and environment in North Eastern States (Assam, Meghalaya, Manipur and Mizoram) of India	Dr. Lalhruaipuii	2017	• The drug resistant bacteria and their interaction among human, animals and environment are established in NER states. • Metallo-betalactamase carrying <i>E. coli</i> detected in human subjects of NER states, which are transmissible to animals through water. • Multiple virulent and AMR genes carrying <i>E. coli</i> were detected in human, pigs, poultry, sheep, goat and cattle including the common water sources of NER states.

2. ANIMAL NUTRITION

PhD programme				
Thematic research area :Mineral mapping of NE states and preparation of Area Specific Mineral mixtures for livestock				
Species: Cattle				
Sl No.	Title of the thesis	Name of the student& Degree programme	Year of completion	Salient outcomes

1	Studies on Soil-Plant-Animal Interrelationship in Relation to Macro and Micro Mineral status and effect of formulated area specific mineral mixture supplementation on production performance of Dairy Cattle in Mizoram.	Dr. Suzanne Malsawmthangi 2012-V-01(D)	2017	1.Dairy cattle of Mizoram were deficient in most of the macro & micro minerals especially Ca, P and Co. 2. Area specific mineral mixtures prepared for dairy cattle in Mizoram. 2.Formulated ASMM supplementation to dairy cows increased milk production by 21.14%
Thematic research area:Utilization of locally available feeds and foddersfor livestock and poultry feeding				
Species: Swine				
2	Effect of feeding palm oil (<i>Elaeisguineensis</i>) sludge as a partial replacement of maize on the performance of growing – finishing Pigs.	Dr.Temjennungsang 2015-V-01(D)	2018	The replacement of maize with palm oil sludge(POS) up to 30% in the concentrate diets did not show any adverse effect on the growth performance,haemato-biochemical profiles, nutrient utilization and carcass characteristics of growing-finishing pigs.Therefore, replacement of maize up to 30% with POS in the concentrate diets of growing-finishing pigs maybe recommended without any adverse affect on the performance and also to reduce the cost of pig production.

3. VETERINARY BIOCHEMISTRY

Ph.D.					
S.No.	Title of the thesis	Name of the student	Major Subject	Year of completion	Outcome (2-3 lines)
Pig					
DISCIPLINE: Veterinary Biochemistry					
Classification/Category: Early pregnancy diagnosis					
1.	Exploration of serum protein biomarkers for early pregnancy diagnosis in pigs	Dr. Ankan De	Veterinary Biochemistry	2019	First report on comparative serum protein profiling of different early pregnancy stages in pigs. 2. Identified a set of proteins which can be used as potential biomarkers for early pregnancy diagnosis in pigs and thereby facilitating more economic pig production.