

A REPORT ON VISIT TO MZU

"TECHNIQUES IN MOLECULAR BIOLOGY"

PLACE OF TRAINING: Biotechnology department MZU

DATE OF TRAINING : 12TH March 2016

SPONSORED BY : Biotech Hub,GZRSC

TEACHERS PRESENT : Mary Laltlansangi

STUDENTS : VI Semester students,2016

STUDENTS PRESENT : 16

SL NO	ROLL NO 1307 BS	NAME
1	001	Lalmangaihzuali
2	006	V.L.Hmangaihzuali
3	009	H.Lalrambeiseii
4	010	Annette Lalthakimi
5	024	C.Lallianzova
6	039	Lalrinkimi
7	042	Vanlalpeka
8	043	Ruthi F.Lalmalsawmtluangi
9	046	Hmingchungnunga
10	047	Doris Lalfamkimi Varte
11	049	Jonathan Vanlalremruata
12	050	Lalramnghaki chenkual
13	052	Baby Lalramngaihzuali
14	054	Loretta lynn
15	055	F.Lalchhanhima
16	063	Joseph R.Laldinthara

The DBT,state Biotech hub,Department of Biotechnology ,MZU organized a one day training programme on "Techniques in molecular Biology" at the Biotechnology department,MZU to give a knowledge as well as experience for further studies.It was organized for the students of vith semester botany students of GZRSC.

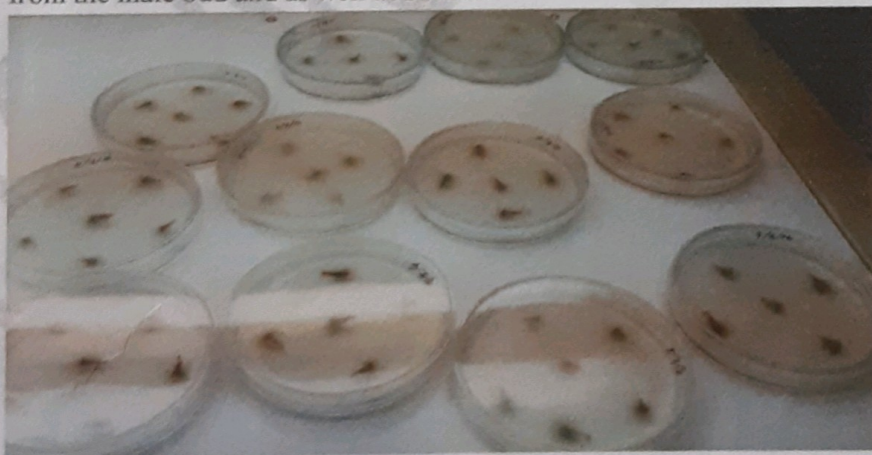
We started out by leaving the college at 9:12 am and was a little late due to punctured tyre.we finally reached the Department of MZU at about 10:16 am and received their most welcome by the Research Scholar.

Plant tissue Culture

The programme was started by listening and understanding the lecture of “*plant tissue culture*” by Dr Robert Singh .he describe and started with the historical milestone in the field of plant tissue and cell culture with the definition and characteristics of tissue culture.He also mention plant tissue culture in the field of Banana.He also talked about the importance of growth regulator in plant tissue culture



After his Presentation we were introduced to the plant tissue culture laboratory and were introduced to Ms Thanjam premabati,a research scholar who had been working on the tissue culture of two wild types of banana found in Mizoram. *Musabalbisiana* (changthir) BBgenome group and AB(Lairawk)of AB genome group.Explants were mainly prepared from the male bud and as well as suckers



subculturing was demonstrated.All the materials are to be sterilized repeatedly during subculturing.

Polymerase chain reaction

PCR technique was done with MS Freda Lalrohlui a Research workers. we were told that just within 35 cycles 1 billion strands could be produced from a target DNA by these technique. The steps involved in PCR –denaturation of target DNA ,primer annealing and primer extension were explained. It was followed by demonstration of the technique of PCR.. The ingredients which is needed are milli-Q water, DNA to be amplified, 4-deoxyribonucleotides (dATP, dCTP, dGTP, dTTP). Tag polymerase, forward primer, reverse primer, $MgCl_2$ and buffer were mixed together and loaded in PCR machine so that the amplification process could take place.



Gel Electrophoresis

The next programme was based on the topics of gel electrophoresis. gel electrophoresis is a technique which is used to separate DNA using an electric field. The technique was demonstrated the Agarose gel (0.8%) which was readily prepared was placed in the electrophoresis tank. some of us also have the chance for practicing the chance of these technique. when the tank is charge with an electrical field the negative charged DNA migrated towards the positive charged after long distance of migration, the DNA can be visualized by a UV transilluminator.

Microbiology and metagenomics laboratory

The last visit was at the laboratory of microbiology and metagenomics. we were introduced to the research work which was being done by the students of the university. cultivation of bacteria and various fermented food were studied by these workers. "saum" a mizo food were also studied by these system. the organize presented us with two books "practical laboratory manual" and principles and methods of molecular biology

After these demonstration the final session ends with giving each students a certificate for their participation in this programme and departed about 3:00 pm from the university campus. from my personal observation I found these programme interesting in each and every of the topics. i would also like my fellow juniors to attend these seminar

Report submitted by

Joseph R. laldinthara

Roll no-63

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