

BIOTECHNOLOGY CENTER (BTC) WORKSHOP SERIES

Introduction & Training in the Applied Biosystems SeqStudio 24 Flex latest generation medium- throughput Genetic Analyzer and its Applications, Sanger Sequencing and Fragment Analysis by Capillary Electrophoresis

From 1-2/July/2024

July 1 st , 2024	Venue	SeqStudio 24 Flex Genetic Analyzer
9 am – 9.30 am	N00A1 102 (Sequencing Lab)	Introduction to SeqStudio 24 Flex Genetic Analyzer & System Set up
9.30 – 11.00 am	N00A1 101 (Real time PCR Lab)	<ul style="list-style-type: none"> a) Purification of Researchers PCR products (5ng/μl) using ExoSAP-IT b) Set Up Sequencing PCR using BigDye Terminator Cycle Sequencing Kit v3.1 and Researchers purified PCR products and specific Primers c) Setting up the Fragment Analysis Experiment
11.00 am – 12.00 pm	BTC - Meeting Room	<ul style="list-style-type: none"> a) AN OVERVIEW - Applied Biosystems Sequencers - Principles, instrument parts and terminology, Modules, protocols, assays, Spatial and spectral calibrations b) APPLICATIONS: <ul style="list-style-type: none"> - Sanger Sequencing (Template preparation and quantification, Sequencing kits and reaction including cleanup and interpretation) - Fragment Analysis (Principles, reagents and sample labelling, size standards and interpretation) by Capillary electrophoresis
Coffee Break (12.00 pm to 1.00 pm)		
1.00 pm - 2.00 pm	N00A1 101 (Real time PCR Lab) & N00A1 102 (Sequencing Lab)	<ul style="list-style-type: none"> a) Purification of Sequencing PCR Products using BigDye X Terminator Kit b) Starting Sequencing and Fragment Analysis Runs with Researchers Samples and Standards on the SeqStudio 24 Flex Genetic Analyzer
July 2 nd , 2024	Venue	Sequencing & Fragment Analysis Software's
9.30 am – 11.00 am	BTC - Meeting Room	<p>Result analysis via Sequencing Analysis Software</p> <ul style="list-style-type: none"> a) Data analysis of .ab1 file structure b) Sequencing Analysis and software tools Troubleshooting
11.00 am -12.00 pm	BTC - Meeting Room	<p>Result analysis via Fragment Analysis Software</p> <ul style="list-style-type: none"> a) Data analysis, .fsa file structure b) GeneMapper demo and software tools c) Troubleshooting
Coffee Break (12.00 pm to 12.30 pm)		