

Table of contents

Foreword	i
Preface by Professor Datuk Dr. A Rahman A Jamal	ii
Preface by Dr. Shing Cheng Tan	iii
About this manual	iv
Bacterial PCR genotyping for infection control	1
<i>Hui-min Neoh</i>	
Intercalating dye-based quantitative polymerase chain reaction in cancer research (optimization, analysis and troubleshooting)	5
<i>Nurul-Syakima Ab Mutalib, Nur Fadhlin Mohamad Pakarulrazy</i>	
Detection of CD63 on extracellular vesicles using aldehyde/sulfate latex beads	14
<i>Nadiah Abu</i>	
Chromatin immunoprecipitation (Co-IP)	20
<i>Ezanee Azlina Mohamad Hanif</i>	
Predictive model using machine learning (scikit-learn & Python)	27
<i>Noraidatulakma Abdullah</i>	
A practical manual for designing single-guide RNA in CRISPR genome editing experiment	30
<i>Mohamad Aimanuddin Mohtar</i>	
Standardized flow-cytometry assay for enumerating peripheral-blood T-cell subsets	38
<i>Nor Adzimah Johdi</i>	
Bioinformatics analysis of mass spectrometry proteomics data using FragPipe	42
<i>Pey Yee Lee</i>	
Adipocyte differentiation from human stem cells and confirmation of the lipid storage	52
<i>Siti Aishah Sulaiman, Vigneswarry Dorairaj</i>	
Evaluating genetic associations using a meta-analytical approach	61
<i>Shing Cheng Tan</i>	

Whole genome sequencing of SARS-CoV-2 virus isolated from nasopharyngeal and oropharyngeal swab transported in viral transport medium	66
<i>Nor Azila Muhammad Azami</i>	
Bayesian inference and probabilistic modeling in multi-omics analysis	80
<i>Muhammad Irfan Abdul Jalal</i>	
A quick start guide to microarray data analysis	84
<i>Muhammad-Redha Abdullah-Zawawi</i>	
Recombinant DNA: a laboratory guide to cloning and in vitro expression	90
<i>Saiful Effendi Syafruddin</i>	