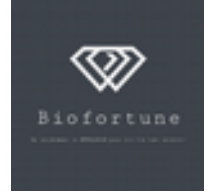




MEMORANDUM OF UNDERSTANDING



between
Providence Women's College, Kozhikode 673009, Kerala, India
and
Biofortune Co., New Zealand

This understanding is with an agreement to the following:

- Biofortune, NZ, will offer trainings and workshops, required for Professional Development of Students, Research Scholars and Faculty members, at PWC
- Both institutions will participate in collaborative research projects
- Resources person will deliver lectures, for students and scholars, on the subject innovations and developments.

This Academic MoU will be executed from the date Providence approached Biofortune for the same (30th March 2020), by their duly authorized representatives, in two countries, and will be valid for a period of five years. There will be no financial commitment from either side.

Representative Coordinators from both institutions will be,

- Dr Mino Divakaran, Associate Professor, Department of Botany, Providence Women's College, Kozhikode, Kerala, (India) and
- Ranjitha HH, Director, Biofortune Co., New Zealand

Date : 30.03.2020

Ranjitha HH
Director, Biofortune, NZ



Dr (Sr) Jaseena Joseph
Principal, PWC, India



PROVIDENCE WOMEN'S COLLEGE

COLLEGE WITH POTENTIAL FOR EXCELLENCE

Re-Accredited with grade A⁺ by NAAC

PROOF OF ACTIVITY UNDER MOU



PROVIDENCE WOMEN'S COLLEGE (IQAC), KERALA, INDIA

In Association with

BIOFORTUNE Co., New Zealand

**45-DAYS PROFESSIONAL SKILL DEVELOPMENT PROGRAM 2.0
'BIOINFORMATICS – A DIAGNOSTIC TOOL'**

SEPTEMBER 1-OCTOBER 15, 2020

Overview

Importance of Genome sequencing for developing drugs and diagnostic tools, is brought to light during COVID 19. Detailing of the new corona virus' biological sequence, was a bioinformatics breakthrough.

Life science students can delve into the situation with ample knowledge of molecular biology, genetics and bioinformatics

Week 1- Module I: Molecular Biology

- Nucleic acids, Transcription, Translation
- Nucleic acid isolation
- PCR and different types
- Basics of NCBI and associated Databases

Week 2 -Module II: Phylogenetic Analyses

- DNA Barcoding, Molecular markers
- Selecting molecular markers for expts
- Sequence alignment
- NCBI, Data bases and tools
- BLAST & Phylogeny
- NJ tree for molecular identification
- PAUP – Maximum Parsimony and Maximum Likelihood tree analyses
- Mr. Bayes and Bayesian Tree for phylogenetic analyses

Week 3 - Module III: Advanced Bioinformatics

- Understanding Genomics Bioinformatics
- Databases & tools (NCBI, UCSC, BLAST, BLAT etc)
- Gene Prediction, Genome Annotation
- Biological Functional Annotation
- Genome Visualization
- Unix based commands for NGS data analysis

Course Objectives

- Basic and Advanced knowledge
- Analytical skills on Phylogeny
- Application level knowledge on bioinformatics .

Resource Person

Dr Rebijith KB,
Senior Scientist, Ministry for
Primary Industries, New
Zealand.

Participation Eligibility

Post graduate and above

System Requirements

- Computer with Internet facilities
- Gmail account
- Mode of delivery - Skype

Course Layout :

21 days (Mon-Fri)

Live session : 2.30 - 3.30 pm

Course Outcome

**Hands on experience
(via screen sharing)
To handle individual
projects**

Coordinator @ Providence :
Dr Minoo Divakaran, Faculty,
Centre for Plant Science Research,
Dept of Botany, PWC



PROVIDENCE WOMEN'S COLLEGE, KERALA, INDIA
In Association with
BIOFORTUNE CO., NEW ZEALAND



INTERNATIONAL BIOINFORMATICS SKILL DEVELOPMENT PROGRAM 2.0
SEPTEMBER 1 - 15 OCTOBER, 2020
CERTIFICATE OF PARTICIPATION

This certificate is awarded to
Ms Abidha EK, Research Scholar,
Dept of Botany, Providence Women's College, Kozhikode, India
for coordinating the program and delivering a lecture on '**Bioinformatics -
a tool for interpreting genetic and genomic data**' on September 1, 2020.

Ranjitha HH
Director, Biofortune, NZ



Dr (Sr) Jaseena Joseph
Principal, PWC, India

15.10.2020