



A 2 Day Course on **MUSHROOM CELL CULTIVATION FROM FARM TO PHARM**

8 - 9 APRIL 2019 | 22 - 23 APRIL 2019

Jasmine Room, N22, IBD UTM

course introduction

In this workshop, mushroom will be shown from two different points of view. In the first view, mushroom considered as a healthy food with rich content of various nourishment which justify its production in the greenhouse. In the other view, mushroom viewed as source of medicinal compound which can be extracted through submerged cultivation. Participant will get familiar with different aspect of greenhouse and submerged cultivation in this course. They will get familiar with basics of mushrooms different modes of cultivations and life cycles. Considering the medicinal importance of mushrooms, the various bioactives will be highlighted with their potential applications in wellness industries. Furthermore, steps involve in submerged cultivation of oyster mushroom and extracting of its bioactive compounds will be shown in the lab scale level.

course objectives

1. Deliver basic information about mushroom biology
2. Provide information about how to start a mushroom farm
3. Give detail information about techniques requirement for having efficient production
4. Give information about basic requirements for submerged cultivation of mushroom
5. Represent the bioactive compounds from mushroom and their medicinal and nutraceutical properties
6. Give an introduction to downstream processing

course content

1. Introduction of mushroom
 2. Cell structure
 3. Cultivation technique and inoculation preparation
 4. Introduction of Mushroom Farm :
 5. How to start mushroom farm :
 6. Bioactive metabolite compound from mushroom :
 7. Bioprocess development for mushroom cultivation :
 8. Downstream processing :
 9. Hands-on practical session
- Preparation of master cell bank, inoculums preparations,
Cultivation Technology of Oyster mushroom - Pleurotus spp.
Culture preparations
Sterilization of glassware, equipments, and culture media used
in mushroom cultivation
Preparation of culture media: Potato Dextrose medium

course fee

Fee is inclusive of lunch, refreshments and course materials.

Accommodation is not included.

Local Participant
RM **900**

**Register
NOW!**

M6 : A 2 Day Course on Mushroom Cell Cultivation from Farm to Pharm

8 - 9 April
2019

22 - 23 April
2019

venue:

Jasmine Room, N22 IBD UTM Johor

YES! I would like to register the following participants

Name 1 _____

Job Title _____

Name 2 _____

Job Title _____

COMPANY INFORMATION

Company _____

Address _____

Town _____

State _____

Tel _____ Fax _____

Email _____

Authorised Signatory (*This registration is invalid without signature from an authorised officer)

Name _____

Job Title _____

Tel _____ Fax _____

Email _____

Signature _____

Method of Payment

Please kindly complete and return the reply form together with :

By cheque / Bank Draft which are made payable to **BENDAHARI UTM**

Payment direct to account

Account name **Bendahari UTM**
Bank **CIMB Bank Berhad**
Account No **8006053536**

Cancellation & Substitutions

A full refund will be promptly made for all written cancellations 2 weeks before the course. 50% refund will be made for written cancellations received 7 days before the course. A substitute may be made at any time.

Note

A) The organiser has the right to make any amendments that they deem to be in the best interest of the course and to cancel the course if insufficient registrations are received a week before course commencement date.

B) CERTIFICATE OF ATTENDANCE will be awarded at the end of the course.

course tutors



PROF. DR. RER. NAT. HESHAM A. EL ENSHASY

Prof. Dr. rer. Nat. Hesham A. El Enshasy is currently a Professor at IBD. He holds a PhD. in Industrial Biotechnology from TU Braunschweig, Germany and holds various postdoctoral positions at Ohio State Univ. and Germany Research Centre for Biotechnology (GBF), which now has changed its name to Helmholtz Centre for Infection Research. He established different research and industrial platforms for the production of biopharmaceutically important compounds using microbial and non-microbial cells. He also organized different training courses on operation and maintenance of biotechnology equipment both for upstream and downstream applications. Dr. El Enshasy is also working as consultant for biobusiness, technology transfer and biotech. facility design/auditing for many biopharmaceutical companies in Egypt, Belgium, Greece, USA, China and Malaysia.



MS. ROSLINDA ABD MALEK (Senior Research Officer)

She is a graduate from Universiti Teknologi Malaysia in Bachelor of Science (Biology Industry), Malaysia. She received her Master of Science (Biotechnology) in year 2009 and working in IBD for 10 years as Research Officer in Bioprocessing, Fermentation Technology, Microbiology, Microbiology analysis and Biotechnology area. She has an interest in upstream part include scale up study bioreactor from 16L to 1500L, medium optimization, isolation several types of bacteria and basic microbiology fermentation and technology. Furthermore she successfully developed several industrial platforms for bacteria, yeast and mushroom cell cultivation for different industries. She has involved with many contract research and production of microbe from local and international company at IBD



DR DANIEL JOE DAILIN

Dr. Daniel is currently a senior lecturer for Bioprocess and Polymer Engineering, School of Chemical and Energy Engineering, Universiti Teknologi Malaysia. Before joining UTM, he works as a principal scientist in the RND department for Biocon Sdn Bhd, Asia's largest integrated insulins manufacturing facility at the Biotech Park in Johor, Malaysia. He also previously worked as a research scientist under the Centre for Biofuel and Biochemical Research (CBBR), Universiti Teknologi PETRONAS in Perak, Malaysia. He received his Ph.D. in Bioprocess Engineering from Universiti Teknologi Malaysia. Dr. Daniel has more than 8 years of experience working in the operation and process scale up for bioprocess fermentation of bacteria and yeast platform; perform technology transfer activities; planning, carrying out and supervising process trials in laboratories, pilot plants and manufacturing plant.



MR. SOLLEH BIN RAMLI (Research Officer)

Mr Solleh is a research officer in Institute of Bioproduct Development (IBD) at Universiti Teknologi Malaysia (UTM). He graduated from Universiti Putra Malaysia (UPM) in Bachelor of Science (Biotechnology) in 2004. After that he takes an industry skill enhancement program of herbal plantation & processing technology course at AdvancedTM Manufacturing Institute (AMI). His research interests are in Fermentation and Bioprocessing Technology. He is person in charge to operate and handling Bioreactor 16L, 150L and 1500L for research and production of microorganisms in IBD since 2006. He specializes in scaling up process for bioreactor and downstream processing. He has involved with many contract research and production of microbe from local and international company at IBD.