

**About Nagaland University:** Nagaland University is a Central University established by the act of Parliament No. 35 of 1989 with campuses at Kohima, Lumami and Medziphema head quartered at Lumami, Zunheboto district.

**About Institutional Biotech Hub (IBTH),**

The Institutional Biotech Hub, Nagaland University, Nagaland, Lumami was established in the year 2011 with the grant from the Department of Biotechnology, Ministry of Science & Technology, Government of India, New Delhi. The broad purpose of the programme is to promote education and research in Biology / Life Science / Biotechnology and to attract brilliant young students to build their career in different fields of biological sciences / biotechnology.

**How to reach Nagaland University, Lumami (Mokokchung), Nagaland**

- (1) **From Guwahati:** Blue Hill /Network Travel Bus Service from ISBT (6:00 pm)
  - (2) **From Mariani/Jorhat:** Tata Sumo Service (7:00 am & 12:15 pm),
  - (3) **From Dimapur:** Bus/Tata Sumo/Winger services (6:00 am & Night service)
  - (4) **Nearest Railway Station: Mariani, Assam (85 KM)**
  - (5) **Nearest Airport: Jorhat, Assam**
- Weather in November-December: Cold, Woolen recommended.

**Organizing Committee**

**Patron: Prof. P. Lal,** Vice Chancellor, Nagaland University

**Organizing Secretary**

**Prof. Chitta Ranjan Deb,** Coordinator, Institutional Biotech Hub (IBTH), & PI, DBT Project, Department of Botany, N.U.

**Joint Secretary**

**Dr. Talijungla,** Deputy Coordinator, IBTH, Department of Botany, N.U.&

**Prof. N. S. Jamir,** Co-PI, DBT Project

**Members**

**Dr. A. Paul,** Assistant Professor, Department of Botany, N.U.

**Dr. Aolemla Pongener, Research Associate Bendangnaro Jamir,** SRF, IBTH

**Mr. Hutuka Y. Jakha,** SRF

**How to apply**

Please fill up the registration form and email it to the following address:

**Prof. C. R. Deb,** Coordinator, Institutional Biotech Hub, Department of Botany, Nagaland University, Lumami 798627, Nagaland

**E-mail: debchitta@rediffmail.com / debchitta@gmail.com/ nu.bthub@dbt.nic.in / paulchachei@rediffmail.com**

**Mobile: +91-9436006808\*/8732006501**

**Short-Term Skill Development Training Program in Biotechnology for Student of North-East India**

**On  
'Orchid Propagation'**

**November 16 – December 15, 2017**



**Organized by  
Institutional Biotech Hub  
Department of Botany  
Nagaland University, Lumami-798627  
Nagaland, India**

**Jointly Sponsored by  
Biotech Park, Lucknow, UP  
Department of Biotechnology  
Ministry of Science & Technology,  
New Delhi sponsored 'Institutional  
Biotech Hub, NU, Lumami &  
Network project 'Orchid Biore-  
sources of the North-East India-  
Conservation, Database Develop-  
ment & Information Networking**

## Who Can Apply/Participate

1. Graduates in Biosciences, Biotechnology, Pharmacy & Masters in Biosciences, Pharmacy students who wish to be high-end skill resource in Biotechnology industry both in research and service sector.
2. Science Teachers from Schools who wish to start 'Tissue Culture Laboratory' in School.
3. Research Scholars in Biosciences who wish to update themselves in different techniques.
4. Faculty members from Colleges and Universities in any branch of life sciences or a relevant field.

## Registration/Course Fee

No Course Fee/Registration Fee will be charged from the participants. However, participants need to manage their own accommodation, travel and food expenses.

## Intake Capacity: 20 (Twenty)

## Important Dates

**Registration: Till November 08, 2017 .**

**Selection:** Selected candidates will be informed by email on 9th, 2017.

## Accommodation

Accommodation for few participants may be arranged in the University Guest House (sharing basis) on actual payment basis. Participants desires accommodation in the University Guest House should request the 'Organizing Secretary' in advance.

## How to Reach the Institutional Biotech Hub (IBTH)

The Institutional Biotech Hub, is located in the Department of Botany, Nagaland University, Lumami., Nagaland

## Course Contents

### Lectures

- (1) Plant Tissue Culture Basics;
- (2) Propagation of orchids by conventional method;
- (3) Orchid Diversity/Types/Uses;
- (4) Orchids and bio-economy.;
- (5) Orchid tissue culture techniques;
- (6) Low cost tissue culture technique.

### Hands on Session

1. Processing of materials for potting mix.
2. Preparation of potting mix for different types of orchids.
3. Techniques of macropropagation/conventional propagation of different types of orchids.
4. Orchid hanging techniques.
5. Preparation of medium/media for green pod culture.
6. Green pod cultures (start to end)
7. Processing of low cost substrata for agar alternatives.
8. Initiation of culture on alternative substrata.
9. One-step hardening technique of tissue culture raised plants.
10. Transplantation of regenerates and maintenance in poly-house.

**Note: First week of the training will be spent on orientation and rest of the time for laboratory work. All trainees will be required to make brief presentation at the end of the training.**

## Registration Form

### Short-Term Skill Development Training Program in Biotechnology for Student of North-East India

On

## 'Orchid Propagation'

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Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Sex: Male / Female (Please tick mark)

Email: \_\_\_\_\_

Phone/Mobile: \_\_\_\_\_

Accommodation required/Not required with date

Signature: \_\_\_\_\_

(Xerox copy may be used)