

Call for trainees for the second International Training Course on Industrial Synthetic Biotechnology

December, 2021

Hosted by Tianjin Institute of Industrial Biotechnology (TIB), CAS

Background

Synthetic biology is widely regarded as a forward-looking and disruptive technology. The industrial application of synthetic biology is expected to provide new solutions to the major challenges on resources, health and environment faced by human beings.

Tianjin Institute of Industrial Biotechnology (TIB), Chinese Academy of Science (CAS) is a leading institute in the field of synthetic biology and green bio-manufacturing, well equipped with state-of-the-art facilities, committed to promoting eco-friendly development in industrial sectors by innovative biotechnology.

In 2019, TIB has successfully hosted the first International Training Course on Industrial Synthetic Biotechnology (ITC-ISB) among which 20 young S&T scholars in biotechnology from 10 countries attended the training course. To encourage more young scientists from the Belt and Road countries to extend their career to Synthetic Biology, TIB will organize the second ITC-ISB during this December via online.

General Information

- Number of trainees: ~50
- Duration of the training course: about 10 days during December, 2021
- Organizer: COMSATS Joint Center for Industrial Biotechnology (CCIB), TIB-CAS
- Sponsor: Alliance of International Science Organizations (ANSO), and Department of International Cooperation, Ministry of Science and Technology, PRC.
- Supporter: Commission on Science and Technology for Sustainable Development in the

South (COMSATS), CAS-TWAS Center of Excellence for Biotechnology, Innovation Cooperation Center (Bangkok), CAS

- Online Platform: VooV Meeting (TBD)
- Language: English

Contents

The training course will focus on the theory, practice and application of the Industrial Synthetic Biotechnology. The main contents include:

- Technical courses: senior experts and scholars from China and other countries will be invited to introduce the advances in frontier technologies in various areas such as biomedicine, bio-agriculture, future food, bio-chemicals, bio-based materials, bioenergy, etc.
- Experimental courses: demonstration experiments of enabling technologies will be presented as a video, including High Throughput Genome Editing, Systems Biotechnology, Protein Structure Analysis, DNA Synthesis, Bio-design and Intelligent Fermentation Technology
- Discussions: the trainees would be arranged to have group discussions and encouraged to introduce the intent of cooperation
- Training Test: the trainees would be arranged to participate the training test at the end of the course to gain the training certificate
- Questionnaires: Feedback of trainees would be gathered to improve the following trainings

Tentative Agenda

During December, 2021, Beijing time (GMT+8)

Date	Time	Contents
Day 1	14:00-15:00	Attendance Taking
	15:00-15:30	Opening Ceremony
	15:30-17:00	Keynote Speech

	17:00-17:10	Video Presentation of the National Center of Technology Innovation for Synthetic Biology (NC SynBio)
	17:10-18:30	Online Visit to TIB
Day 2	14:00-18:30	Technical Courses Session 1: Frontier technology progress on biomedicine
Day 3	14:00-18:30	Technical Courses Session 2: Frontier technology progress on bio-agriculture
Day 4	14:00-18:30	Technical Courses Session 3: Frontier technology progress on future food
Day 5	14:00-18:30	Technical Courses Session 4: Frontier technology progress on bio-chemicals
Day 6	14:00-18:30	Technical Courses Session 5: Frontier technology progress on bio-based materials
Day 7	14:00-18:30	Technical Courses Session 6: Frontier technology progress on bioenergy
Day 8	14:00-18:30	Experimental Courses Session 1-3 (High Throughput Genome Editing, Systems Biotechnology, Protein Structure Analysis)
Day 9	14:00-18:30	Experimental Courses Session 4-6 (DNA Synthesis, Bio-design, Intelligent Fermentation Technology)
Day 10	14:00-18:30	Group Discussions
Day 11	14:00-16:30	Training Test
	16:30-17:00	Graduation Ceremony

Note: Each session contains three lectures, including presentation and Q&A

Costs Covered

- No training fee

Eligibility Criteria

- Enrollment region: Scientists from the Belt and Road Countries, especially those from ANSO members and Centers of Excellence of COMSATS
- Education background: Self-motivated young scientists/engineers entitled with Ph.D. degree in principal from institutes or universities in industrial biotechnology, microbiology, molecular biology, synthetic biology, bioinformatics, metabolic engineering, bio-catalytic engineering, fermentation engineering, bioprocess engineering, etc.
- Age limit: 45 in principal (no more than 50 with senior title)

- Language requirements: proficient in English communication

Application Documents

- A cover letter, including self-introduction, reasons for applying for the course and expectations for the course. (No more than 800 words in principal)
- Application form (attached)
- Recent 2 inch full-faced and bareheaded electronic photo (preferably 3.5*4.5cm)
- E-copy of the passport and previous Chinese visa if available
- Two recommendation letters from the principal investigator and the head of International Cooperation Department, respectively

Key Dates

- Deadline for Application: **December 5, 2021** (submit the above application documents to e-mail: ccib@tib.cas.cn)
- Notice of Acceptance: before December 15, 2021 by email

Contact Information

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Attachment

Application Form