





# Designing and Operating a BSL-3 Facility

#### **COURSE OVERVIEW**

The course will equip participants with the knowledge and skills to use a Risk-Based approach in designing and operating a BSL-3 facility.

They will learn how to develop operational procedures to manage safety, security and compliance, and put in place a robust safety system for their facility.

#### DO YOU KNOW?

Using a Risk-Based approach can save a BSL-3 facility tremendous dollars for Operation, Maintenance and Construction. The costs saved can then be translated to continuous improvement yielding productivity for years to come.

This course is designed to empower participants with such knowledge. In this highly interactive course, participants learn via case studies, demonstrations and practical sessions. Trainers are practitioners in their field and will challenge participants with Risk-Based thinking at every stage of design and operations in their BSL-3 facility.

#### WHO SHOULD ATTEND

- ✓ BSL-3 facility operators
- ✓ Biosafety professionals
- ✔ Researchers who work in BSL-3 facility
- ✓ Regulators and legislators

# COURSE DATE 22<sup>nd</sup> - 25<sup>th</sup> April 2019

Fee : SGD1,800 (exclude GST)
Tea-Breaks and Lunch provided

Overseas travel grant available, apply by 18th January 2019 https://bit.ly/2ScpjyH

#### **Group Discount:**

Contact us for more information

**Location**: Duke-NUS Medical School

8 College Rd Singapore 169857

#### **LEARNING OBJECTIVES**

Attendees will learn how to apply Risk-Based approach to:

- Identify safety and security risks, and compliance requirements for a BSL-3 facility
- Conduct effective risk assessments
- Designing a BSL-3 facility: From Layout to Engineering
- Decontamination system
- Working safely in a BSL-3 facility
- Emergency preparedness
- Plan maintenance for BSL-3 operations

#### **COURSE OUTLINE**

This course combines both theory and practical sessions for attendees. Lecture sessions conducted allow the attendees to grasp the theory components in terms of biosafety requirement for both research and engineering perspective. Attendees would be able to apply the knowledge for practical know-how in case study scenarios, with hands-on approach to prepare for emergency situations in a BSL-3 facility.

#### **TRAINERS**

#### Mr. Theodore Traum

World BioHazTec Corporation

#### Mr. Dan Yoong

World BioHazTec Pte Ltd

#### Dr Viji Vijayan

**Duke-NUS Medical School** 

#### **Dr Sumita Anant**

**Duke-NUS Medical School** 

#### Mr. Benson Ng

Duke-NUS Medical School

# PROGRAM OVERVIEW

## Day 1

Basic Principles of biorisk
Principles of biosafety and biosecurity
Principles of containment
Legislation and compliance
Hazard identification, risk assessment and risk
control measures
Group activity on risk assessment and control

## Day 2

Manage risk through facility design
Facility location and design and cost
consideration
Operations and maintenance considerations
Room Decontamination Technologies
HVAC and airflow design
HEPA Filters
Biosafety cabinets
Certification of a BSL3
Group activity on facility design

# Day 3

Facility operations
Developing SOPs
Choice of PPE
Inventory management
Waste management
Emergency management and procedures
Performance Monitoring
Group activity on developing SOPs

# Day 4

Visit to BSL3 facility and hands-on practice

#### **Contact Information**

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