

**Document Reference Number** 

UoN/GSRER-DoR-POL-006/V1/2020

# UoN BIOSAFETY POLICY

Professor Ahmed bin Khalfan Al Rawahi The University Chancellor

# UoN BIOSAFETY POLICY

Proposed by: Deanship of Research, VCGSRER

Approved by: Professor Ahmed bin Khalfan Al Rawahi, The University Chancellor

Document Reference Number: UoN/GSRER-DoR-POL-006/V1/2020

## **Table of Contents**

NO.	SECTION	PAGE NO.
I	Introduction	3
II	Objective	3
III	Purpose	3
IV	Scope	4
V	Definitions	4
VI	UoN Related Policies and Documents	4
VII	Policy Statements and General Provisions	4
VIII	Procedure	5
IX	Roles and Responsibilities	6
X	Historical Records	7

This page is intentionally left blank

#### I. INTRODUCTION

This policy provides information about safe work practices at University of Nizwa (UoN) when dealing with biohazardous materials, or protective gears. The UoN affirms that all chemicals and biohazardous materials used by its members are regulated in order to minimize the potential risk of accidental spills of chemicals, infection to living beings and any other harm. All research protocols must be reviewed and approved by the appropriate research committee (e.g Human Research Ethics Committee, Animal Research Ethics Committee or the Biosafety Officer/Expert at UoN) prior to commencement of research activities if they involve the use of any of the following:

- Any infectious agent that has the ability to transmit to human/animal/plants and cause diseases
- · Potentially harmful chemical substances used in laboratories
- · Genetically modified organisms
- Transgenic animals/plants
- Experimentally infected animals
- · Biohazardous waste
- Recombinant and synthetic nucleic acid molecules.

Biosafety involves the procedures, equipment, and facilities necessary to prevent or minimize an exposure to, or release of, a biohazard.

#### II. OBJECTIVE

The objective of this Policy is to define regulations and procedures pertaining to use of biohazardous materials in research at UoN and to ensure that all research and teaching activities involving bio-hazardous materials at UoN comply with all internal and external regulations.

#### III. PURPOSE

UoN Biosafety Policy is prepared with an intention to provide the stakeholders a safe and healthy environment.

#### IV. SCOPE

This policy applies to all UoN community members involved in any activity involving chemicals, biohazardous materials or any potentially dangerous substances, at any of the sites that are owned or leased by the University. This policy is also applicable to any UoN members who have access to the areas where the above mentioned activities are carried out.

## V. DEFINITIONS

Biosafety refers to the safe handling and management of infectious pathogens and biohazardous material.

**Bio-hazardous material** refers to microorganisms, microbial toxins, genetically modified organisms, recombinant or synthetic nucleic acid molecules or other biological agents that can infect and/or cause disease in humans, animals, or plants.

#### VI. UoN RELATED POLICIES AND DOCUMENTS

This policy should be read along with the following policies and guidelines:

- i) UoN Research Policy and Regulations
- ii) UoN Bioethics Policy

#### VII. POLICY STATEMENTS AND GENERAL PROVISIONS

- 1. The UoN shall support all the efforts of the government towards safeguarding the environment by regulating all its operations involving chemicals and biohazardous materials.
- 2. The University shall follow a Biosafety Program that complies with government regulations, and conforms to internationally accepted biosafety practices.
- 3. The University shall have a Biosafety Manual for its members that is revised periodically according to the changes in legislation and standard codes and practices.
- 4. The University shall maintain an up-to-date register of all bio-hazardous materials available in the campus.
- 5. The University shall have a Biosafety Officer (BSO) who has the authority to suspend any operations involving bio-hazardous materials that pose a significant threat to humans or the environment.
- 6. Accidental spills of chemicals shall be treated according to the emergency management policy designed by the BSO.
- 7. The UoN shall ensure that its operations shall prevent its members from persistent exposure to chemical substances.

- 8. The UoN shall ensure proper ventilation of all the laboratories to let out any noxious fumes resulting from any chemical reactions.
- 9. The UoN shall ensure that its members use proper protective gears while using chemicals and biohazardous materials.
- 10. The UoN shall ensure the existence of proper plans to discard unused chemicals and biohazardous materials.
- 11. The University shall conduct periodic workshops for all the individuals who handle bio-hazardous materials.

### VIII. PROCEDURE

The use of bio/hazardous materials is essential to UoN research and teaching programs. The UoN is committed to following the guidelines and fulfilling the national regulations of safe handling of biohazardous materials, set forth by the governmental authorities.

All researchers must report any bio/hazardous materials to the Biosafety Officer, who is responsible for keeping a record of any bio/hazardous materials that are used at UoN. The Research Principal Investigator is required to ensure that the laboratory is appropriate to conduct experiments with biohazardous materials.

Animal research that involves a hazard (biological, radiological, or chemical) must be conducted in accordance with internal and external regulations; and the research protocol must be reviewed and approved by the Animal Research Ethics Committee. In addition, all researchers dealing with animal(s) shall obtain an ethical clearance before commencement of research in animal(s).

The Biosafety Officer must approve any activity involving human pathogens or recombinant DNA in animals (including transgenic animals) prior to initiation. The Biosafety Officer should be contacted to initiate the approval process.

## Registration with Biosafety Office is required for the researches that involve any of the following:

- Microorganisms, cell lines, human materials, animals, and toxins
- Human pathogens and other potentially infectious materials
- Human blood, body fluids or tissues
- Animals used for research including transgenic animals
- Chemical substances used in laboratories.

Each laboratory must develop emergency response guidelines detailing with the procedures for spills, exposures, incidents, reporting instructions, and the location of emergency equipment. These guidelines should be monitored by the Biosafety Officer.

Initial training for all new laboratory personnel should be provided through the laboratory chairperson or principal investigator. Evidence for such training must be given if requested by the Biosafety Officer or any other authorities at UoN. Training courses should be provided by UoN to all individuals using the laboratory. Training courses include, but are not limited to, infectious substance(s) and biological materials shipping, and Biosafety Cabinet Training.

A comprehensive Biosafety Manual must be prepared and disseminated to all staff/students.

## IX. ROLES AND RESPONSIBILITIES

## 1. Responsibilities

## 1.1 Vice Chancellor for Research, Graduate Studies and External Relations (VCGSRER)

The Vice Chancellor shall:

- provide resources and support to implement policies that govern the safe conduct of research and teaching involving bio-hazardous materials.
- Constitute the UoN Biosafety Committee.
- Ensure the compliance of the UoN community with the bio-safety program.

#### 1.2 Research Scientific Committee/ Ethics Committee

This committee consist of expert members selected from different departments/centers of UoN. It is recommended that the committee includes consultants with knowledge of UoN policies, applicable laws, standards of professional conduct, etc.

Responsibilities include:

- 1. Review all the researches that involve bio-hazardous materials and confirm that they abide by the existing biosafety regulations
- 2. Assess the facilities, equipment, operations, and other elements associated with the research
- 3. Notify the Principal Investigator of the Committee's decisions
- 4. Execute emergency plans in case of any adverse events involving bio-hazardous materials.
- 5. Preserve a record of all meetings with key discussion points and decisions, related to biohazardous materials
- 6. Report major problems or violations of National Health Guidelines to VCGSRER
- 7. Prepare and submit an annual report to the VCGSRER.

#### 1.3 Laboratory Chairperson

The laboratory chairperson is accountable for the implementation and maintenance of safe practices and procedures in the department.

#### 1.4 Principal Investigator (PI)

The Principal Investigator (PI) is defined as the faculty member who leads and executes the research activity involving bio-hazardous materials. The Principal Investigator is responsible for assessing risks, drafting operational guidelines for the research, training personnel and maintaining the research facility according to the accepted standards.

#### 1.5 Biosafety Officer shall:

- 1. Assist faculty members in establishing and maintaining research and teaching laboratories that are safe and healthy
- 2. Prepare the Bio-Safety manual with the help of Research Ethics Committee
- 3. Contribute to the University's Institutional Biosafety Committee (IBC) and serve as the Chair of the Committee
- 4. Report to the IBC any significant problems including breaches of the *NH Guidelines*, and all research-related accidents/illnesses when the PI fails to report the incidence
- 5. Inspect the laboratories to ensure that standards and containment conditions put forth by the IBC are followed

- 6. Assist IBC in executing emergency plans in case of any adverse events involving biohazardous materials
- 7. Advise the Principal Investigators and the Institutional Biosafety Committee on issues of safety involving bio-hazardous materials
- 8. Liaise with laboratory coordinators of the departments and ensure compliance with regulatory guidelines and policies pertaining to biosafety issues
- 9. Ensure the appropriate disposal of bio-hazardous materials.

## 1.6 Laboratory Staff

- 1. Follow established laboratory safety practices and standard operating procedures.
- 2. Calibrate all equipment for performance and safety before use.
- 3. Inform the Principal Investigator about any research related illness and practices/conditions/accidents/that pose risk to humans or the environment.

### X. HISTORICAL RECORDS

- This Policy was drafted by the Office of VCGSRER
- It was edited by Dr. Mohamed Ismail, Pro-VCAA
- It was approved by the UEB in Meeting 1/S2020, dated 18th February, 2020.