OIST Graduate University Policies, Rules & Procedures

Authority: Approved by the CEO/President, the Secretary General and the Provost

- Industrial Safety and Health Act
- Offensive Odor Control Law
- Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
- Explosives Control Act
- High Pressure Gas Safety Act
- Ordinance on Safety and Health of Work under High Pressure
- Fire Service Act
- Water Pollution Prevention Act
- Air Pollution Control Act
- Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof
- Poisonous and Deleterious Substances Control Act
- Agricultural Chemicals Control Act
- Narcotics and Psychotropics Control Act
- Stimulants Control Act
- Waste Disposal and Public Cleansing Act
- Act on the Conservation and Sustainable Use of Biological Diversity through Rules on the Use of Living Modified Organisms
- Act on Domestic Animal Infectious Diseases Control
- Act Concerning the Prevention of Infectious Diseases and Medical Care for Patients with Infectious Diseases
- Rabies Prevention Act
- Plant Protection Act
- Act on the Protection of Fishery Resources
- Invasive Species Act
- Act on Welfare and Management of Animals
- Act on the Prohibition of Chemical Weapons and the Regulation of Specific Chemicals
- Act on Prevention of Radiation Disease Due to Radioisotopes, etc.
- Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors

Chapter 13: Safety, Health & Environmental Protection

13.1 Policy

Through an array of orientation programs including safety matters, research- and jobspecific safety and education and training courses, and health and wellness programs, OIST Graduate University ("the University") promotes the safety and health of its students, employees, and others within the University Community. The University also strives to carry out the activities that comprise and support its education and research mission in a manner that will preserve and protect the distinctive natural environment in which the campus is located. This includes conscientious recycling and appropriate handling and disposal of hazardous waste and other waste materials, as well as utilization of energy efficient practices and modalities. Additionally, because Okinawa is located in a unique geological region subject to earthquakes, tsunamis, typhoons, and other natural disasters (and associated fires), the University has in place rigorous Disaster and Emergency Preparedness protocols and training for students and employees.

It is University policy to meet or exceed all legal and regulatory requirements regarding Safety, Health & Environmental Protection ("SHEP") and may impose additional requirements as appropriate. Each member of the University community is expected to comply with the University's policies, rules, and procedures regarding safety (including disaster preparedness), health, and environmental protection in addition to complying with all relevant Japanese legal requirements. The dedication and active commitment of every individual regarding SHEP is critical to the success of the University's safety, health, environmental protection, and disaster preparedness programs.

13.1.1 General Safety Policy

General workplace safety training is important for everyone at the University, even those who believe that they have a non-hazardous desk job. Safety training is one of the most basic and important functions of the University. Safety training provides insight into potential hazards in the workplace, how to spot them, and what to do once a hazard is recognized. Several forms of training are available, such as group instruction, WEB-based training, or one-on-one sessions. The University requires that all those who operate in the University take safety training programs, including the Basics of Health and Safety program which extensively covers workplace safety matters [Link: <u>13.3.1</u>], and renew program certifications as necessary. **13.1.1.1** Job-Specific Safety Policy. Numerous hazards are job-specific. Operation of machine tools, electrical work, construction, plumbing, and just about any effort involving machinery will expose those doing that work to dangers. Work involving these dangers is subject to stringent occupational safety regulation and training, and those who are engaged in those occupations (or those otherwise carrying-out such activities) at the University must take the relevant safety training [Link: 13.3.2].

13.1.1.2 Research Safety Policy. Different experiments pose different potential risks. Individuals involved in conducting experiments must familiarize themselves with all potential risks before starting the experiment so that they can anticipate possible incidents, ensure to follow safe experimental procedures and take safety measures to prevent incidents. Additionally, Faculty members and Lead Investigators must instruct research personnel about appropriate safety measures, and research personnel must follow their instructions and advice. If an accident occurs, OIST personnel must implement appropriate first-aid responses, giving priority to rescuing activities and attending to injured people, and to preventing the spread of damage.

13.1.2 Health & Wellness Policy

The University offers training, programs and medical services to promote the physical and mental health and well being of employees and students and to support a healthy and productive work environment. Employees and students are expected to engage in the University's Health & Wellness programs, to be conscious of their health, to undergo periodic general and specific medical examinations [Link: <u>41.3.1</u>], to pay attention to diet and nutrition, to exercise daily, to get enough sleep each night, and to take time for relaxation and recreation.

13.1.3 Environmental Protection Policy

The University is committed to the continuous development of technologies related to renewable energy, to research in the environmental and associated sciences, and to minimization of energy consumption in its activities. All employees and students are expected to behave in conformance with the University's policy of reducing environmental impact, reducing waste, managing and handling of hazardous waste, and maximizing energy efficiency.

13.1.4 Disaster Preparedness & Emergency Response Policy

In order to minimize the adverse impact of the unpredictable natural and other disasters that may strike, the University has developed and deployed preparedness and emergency response plans. It has also established evacuation areas, evacuation routes, and emergency contacts. University employees and students are expected to familiarize themselves with these preparations, plans and precautions. All members of the University community are expected to also have personal plans for dealing with disasters and emergencies away from the University. For details, see "<u>OIST</u> <u>Graduate University Emergency, Safety and Health Procedures and Guidelines</u>."

13.2 General Considerations

13.2.1 Industrial Safety & Health Act and Other Significant Laws

With regard to occupational safety and health, the University's activities are subject to Japan's <u>Industrial Safety and Health Act</u>. In addition, the University has its own <u>Safety and Health Management Rules</u>, <u>Rules for Safety Management System</u> and a <u>University Safety and Health Committee</u>. Also, additional laws applicable to the University's various research and academic activities are set out where relevant elsewhere in this Chapter.

13.2.2 (Deleted and merged into PRP4.11.7)

13.2.3 Transporting Biological Agents, Chemical Materials, and Other Regulated Material

Transportation of many research materials, devices, and substances is subject to strict regulations, under the provisions of the Postal Act, Terms and Conditions of Domestic Postal Services, Universal Postal Convention, and IATA Dangerous Goods Rules, among others. Additionally, containers and packaging for transport within Japan and overseas must comply with specific requirements.

Relevant laws affecting import/export of biological agents and chemical materials include:

- <u>Act on the Conservation and Sustainable Use of Biological Diversity through</u> <u>Rules on the Use of Living Modified Organisms (Cartagena Act)</u>
- <u>Act on Domestic Animal Infectious Diseases Control</u>
- Rabies Prevention Act
- <u>Act Concerning the Prevention of Infectious Diseases and Medical Care for</u> <u>Patients with Infectious Diseases</u>

- <u>Plant Protection Act</u>
- Invasive Alien Species Act
- <u>Act on the Protection of Fishery Resources</u>
- Import and export of chemical materials is regulated by the <u>Act on the</u> <u>Evaluation of Chemical Substances and Regulation of Their Manufacture</u>, etc. (Chemicals Evaluation Act)

13.2.4 Acquisition of Genetic Resources

If genetic resources are acquired abroad or are brought into Japan for research purposes, the University shall review providing country's laws and regulations in advance based on the Convention on Biological Diversity and complete Access and Benefit-Sharing (ABS) procedures. Researchers shall contact Academic Agreement Section in case of acquiring from or jointly acquiring from academic institution of providing country, or Technology Licensing Section in case of acquiring from or jointly acquiring country other than academic institution, and complete necessary procedures. Genetic resources subject to ABS include animals, plants, microorganism (including viruses), DNA/RNA extract, and traditional knowledge about use of genetic resources.

13.2.5 Safety-Related Signage

"Safety Signs" warning of hazards and the need for caution are posted at various locations around the campus. Some are temporary warnings, such as used during construction or roadwork. Those placed on laboratory doors are generally permanent and must be taken seriously. Employees, students, and visitors are expected to notice, read, and obey all safety signs. Safety signs are fabricated and maintained in accordance with <u>University Safety Signs Guidance</u>

13.2.6 Incident and Accident Response & Reporting

Everyone in the University has a responsibility to respond to and report health or safety incidents and accidents in accordance with the "<u>OIST Graduate</u>

<u>University Emergency, Safety, Health Procedures & Guidelines</u>", "<u>OIST Incident and</u> <u>Accident Reporting Guideline</u>" and other relevant rules.

If in the case of minor incidents or accidents or the victim or witness is able to identify the section that should respond, then he/she may directly contact that section without following the procedure above.

However, a report shall be submitted to the Safety and health via WEB form or other means to a University Safety and Health Committee at a later date.

The reports are used only for accident prevention activities, and the reporters will not be sanctioned for reporting the cases.

13.3 Rules

13.3.1 Training

Training on health and research as well as environmental protection is provided in classroom-based, online and hands-on forms. At the University, all persons who operate in the University, regardless of their affiliation or how long they have been or will be operating at the University, must select and take any trainings that are required for the type of activity they plan to engage in, before engaging in it or before submitting the required application. Certification of trainings is generally valid for five years; however, certification of some trainings expires earlier. In addition, all persons are required to take the Basics of Health and Safety and the Update Session on Research Safety every year to renew certification of these trainings. Training must be retaken when deemed necessary by the University, such as when laws and regulations are revised, or before the expiration of the validity period. In addition to taking the required trainings, supervisors, such as faculty members and section leaders, must also inform their subordinate faculty and staff members as well as non-University personnel they have accepted about all required trainings and confirm that they have completed these trainings. For details on education and training and who can attend, see <u>WEB Link</u>.

13.3.1.1 Basics of Health and Safety

The Basics of Health and Safety is a comprehensive training on health and safety and environmental protection, which is also one of the important initial trainings that all new personnel at OIST must receive. Its training material puts together all the basic health and safety matters that those operating at OIST ought to know. It enables trainees to develop an overall understanding of emergency procedures, applicable legal and regulatory requirements as well as University rules. All University students and employees, including clerical workers (and contract workers) not directly engaged in research or experiments, must receive this training. The material is updated as necessary, to include revision of laws and regulatory provisions as well as University rules. Certification of this training is valid only for one year, and thus all persons are required to complete annual renewal by receiving the training again before expiry.

13.3.1.2 Responsible Conduct of Research

The Guidelines for Responding to Misconduct in Research (Decision by the Minister of Education, Culture, Sports, Science and Technology, August 26, 2014) require research institutions such as universities to provide research ethics education to a wide range of persons who are involved in their research activities. All persons who are involved in research activities or operations for supporting research at the University must take the Responsible Conduct of Research program. Administrative employees who are not directly involved in research activities are also strongly recommended to take this program. [Link: 4.8.2] Additionally, taking research ethics materials provided by an institution other than OIST is also encouraged. Of note, those who have acquired an external research grant may be required to take an additional research ethics material by the funding agency. Certification of this program is valid for five years.

13.3.1.3 Required Trainings for Personnel who Operate in the University

To perform certain types of work, personnel must take certain trainings which are required by laws, regulations and guidelines, or are necessitated to operate safely. Those who are engaged in an activity at the University must complete all required trainings before the commencement of the activity or application procedures relating to it. Information on required trainings for specific works can be obtained from the relevant laws and regulatory provisions as well as the <u>University's Health</u> and <u>Safety website</u>. Persons who operate at the University are recommended to additionally take a broad range of programs even if they are not mandatory. In addition, if training programs consist of multiple modules, including those of mandatory and non-mandatory, likewise, trainees should willingly take non-mandatory modules as well.

Persons who are engaged in waste collection or cleaning as well as outside contractors who have access to laboratory areas must complete the Advanced Safety Program on Health and Safety in advance of the commencement of the work and, subsequently, at least once in five years.

13.3.2 Hazardous Work and Handling of Harmful Agents

The following general rules must always be observed when performing hazardous work or handling harmful agents:

(1) When handling an apparatus or equipment that involves high temperatures, high

pressure, high voltage or high speed or that is heavy weight, use appropriate protective measures and equipment and work attentively.

- (2) Before using an apparatus or equipment that is new to the operator, the operator must carefully read operation manuals, do any other appropriate preparation work and ask for guidance from a person who has experience in using the apparatus or equipment.
- (3) Before operating an apparatus, device, or equipment that requires a particular skill, the potential user must be familiar with basic operations of the apparatus or equipment.
- (4) After use, the apparatus, device, or equipment and the surrounding areas must be cleaned up; if any defect is found, it must be promptly repaired (or the next user notified of the problem).
- (5) The following personal protective equipment must be provided and used as necessary:
 - Protective equipment for eyes and face (such as glasses with face shield)
 - Protective equipment for body, hands and feet (such as protective clothes, gloves and safety shoes)
 - Protective equipment for respiration (such as dust respirator, gas mask and air respirator)
- (6) Maintain personal protective equipment so as to be used in the best condition anytime and clearly indicate the place where they are stored.
- (7) Be familiar with how to wear personal protective equipment so that they can be worn quickly and appropriately when necessary.
- (8) After use, personal protective equipment must be sterilized appropriately and stored in an appropriate place.
- (9) Employees who are engaged in work with limitations on working conditions or work specified as dangerous or harmful work under the Industrial Safety and Health Act or any other relevant laws must have license or have completed skill trainings or special trainings required by the Act or such laws.

13.3.3 Machinery, Equipment, Instruments & Devices

In performing their duties for the University, workers may make use of a variety of machines, equipment, devices, tools and instruments, large and small, simple and complex, from hammers and welding torches to cranes and lasers (collectively referred to as "equipment"). All workers must read the related manuals thoroughly to understand and know the measures how to avoid or mitigate hazards.

13.3.3.1 Equipment that Require License or Notification

The Industrial Safety and Health Act or any other relevant laws may require a potential user of certain equipment to obtain license or submit a notification for the use in advance; for details, see "<u>OIST Safety and Health Management Rules</u>" and the <u>University's pertinent website</u>. However, for any license or notification procedures which involve the Fire Prevention Ordinance of the Okinawa Prefecture, the Facility Management Section will act as the contact office for communication between the University and the Okinawa Prefecture.

13.3.3.2Unattended Operation of Equipment

Although refrigerators, freezers and incubators operating in an intermediate temperature range may be left unattended exceptionally, the general rule is that no equipment may be left unattended while operating (including overnight operation). However, in the case of low risk machines that are provided with safety devices, unattended operation may be conducted if all pertinent ancillary safety precautions are in effect. When performing unattended operation, the following notices must be posted:

- On the equipment, indicate that unattended operation or overnight operation is scheduled;
- On the equipment, post a description of the current operation and provide emergency response and contact person information.

13.3.3.3 Equipment Requiring Periodic Inspection

The Industrial Safety and Health Act or any other relevant laws may require periodic inspection on certain equipment and installations; for details, see "<u>OIST</u> <u>Safety and Health Management Rules</u>" and the <u>University's pertinent website</u>.

13.3.3.4 Use of Laser

Refer to "<u>Laser Safety Management Rules</u>" and "<u>Laser Safety Standards</u>" for use of laser.

13.3.3.5 Use of X-ray Instruments

The necessary requirements to ensure the safe and appropriate use of X-ray instruments are stipulated in "<u>X-ray Instruments Management Rules</u>". The University's X-ray instrument website is [Link].

13.3.3.6 Mechanical Workshop

In order to obtain permission to enter the Mechanical Workshop and to use the equipment, a user must apply to the Engineering Section and successfully complete the training concerning safe use of the equipment beforehand. When using the equipment, a user must pay attention to safe operation, following the rules set by the Engineering Section.

13.3.4 Rules for Working with Electrical Hazards

Electricity, especially high-voltage electricity, can be extremely dangerous to work with or around. It poses a serious risk to human life, as well as to property, if not properly, appropriately, and carefully managed and handled. All persons working with electricity must make efforts to prevent electrical accidents or injuries and conduct the electrical work under the supervision of the Electrical Chief Engineer whenever such work is needed. When conducting electrical work on campus, the procedures for electrical work [Link: Procedures for Electrical Work] must be observed.

13.3.5 High Pressure and Liquefied Gas

In the case of handling high pressure or liquefied gas, the person must comply with the requirements of the "<u>High Pressure Gas Safety Act</u>", which regulates the use of compressed gases and stipulates in detail how to use these gases. Liquefied gases that can become 0.2 MPa are also regulated as high pressure gases such as petroleum gas, compressed acetylene gas, liquefied hydrogen cyanide, liquefied ethylene oxide and liquefied bromomethyl. Those using such regulated high pressure/liquefied gas must undergo training concerning high pressure gas and must use the high pressure gases in safe manner, undertaking all necessary safety measures in compliance with the High Pressure Gas Safety Law.

13.3.6 Experiment/Research required Institutional Review

If an experiment involves recombinant DNA [Link: <u>13.3.7</u>], pathogens and toxins [Link: <u>13.3.8</u>], laboratory animals [Link: <u>13.3.9</u>], radiation [Link: <u>13.3.10</u>], human subjects research [Link: <u>13.3.11</u>], field work [Link: <u>13.3.13</u>], or laser [Link: <u>13.3.3.4</u>], the experimenter must submit an application to the pertinent secretariat (Section in charge) for review by the pertinent Institutional Review Committee before commencing the experiment and obtain approval from the Secretary General. However, animal experiment requires approval from the Provost.

The Institutional Review Committees established in the University are:

- Biosafety Committee
- Animal Experiment Committee
- Radiation Safety Committee
- Human Subjects Research Committee
- Field Work Safety Committee
- Laser Safety Advisory Committee

13.3.7 Recombinant DNA Experiments

Operation of Recombinant DNA Experiments must comply with the following Rules and Acts, and other legal and regulatory provisions. In addition, completion of appropriate training programs and necessary procedures is also required before commencing any experiments in this category. When procuring or acquiring living modified organisms (LMOs) from or providing LMOs to other institutions, necessary procedures must be completed beforehand, in compliance with all legal and regulatory provisions concerning import/export as well as the rules of a carrier of international shipment.

- OIST Graduate University Recombinant DNA Experiment Rules
- OIST Graduate University Biosafety Management Rules
- OIST Graduate University Biosafety Committee Rules
- **OIST Biosafety Manual**
- <u>Act on the Conservation and Sustainable Use of Biological Diversity through</u> <u>Rules on the Use of Living Modified Organisms</u>
- <u>Recombinant DNA WEB site</u> (Occupational Health and Safety)
- Japan Biosafety Clearing-House (J-BCH)

13.3.8 Experiments Handling Pathogens and Toxins

Operation of Experiments handling Pathogens and Toxins must comply with the following Rules and Acts, and other legal and regulatory provisions. In addition, completion of appropriate training programs and necessary procedures is also required before commencing any experiments in this category. When procuring or acquiring pathogens and toxins from or providing them to other institutions, necessary procedures must be completed beforehand, in compliance with all legal and regulatory provisions concerning import/export as well as the rules of a carrier of international shipment. Of note, a wide variety of biological agents are subject to the biosafety committee review at OIST.

OIST Graduate University Biosafety Management Rules

- OIST Graduate University Biosafety Committee Rules
- **<u>OIST Biosafety Manual</u>**
- National Institute of Infectious Diseases Safety Management Regulations for Pathogens and Toxins
- <u>Act Concerning the Prevention of Infectious diseases and Medical Care for</u> <u>Patients with Infectious Diseases</u>
- <u>Pathogens and Toxins WEB site</u> (Occupational Health and Safety)

13.3.9 Animal Experiments

Operation of Animal Experiments must comply with the following Rules and Acts, and other legal and regulatory provisions. In addition, completion of appropriate training programs and necessary procedures is also required before commencing any experiments in this category. When procuring or acquiring laboratory animals from or providing them to other institutions, necessary procedures must be completed beforehand, in compliance with all legal and regulatory provisions concerning import/export as well as the rules of a carrier of international shipment.

- OIST Graduate University Animal Experiment Regulations
- <u>OIST Graduate University Detailed Stipulations for Animal Care and use</u> <u>Committee</u>
- <u>OIST Graduate University Detailed Stipulations for the Vivarium Operation</u> <u>Committee</u>
- <u>SOP</u>
- <u>Act on Welfare and Management of Animals</u>
- <u>Standards Relating to the Care and Management of Laboratory Animals and</u> <u>Relief of Pain (MOE)</u>
- <u>Fundamental Guidelines for Proper Conduct of Animal Experiment and Related</u> <u>Activities in Academic Research Institutions (MEXT)</u>
- <u>Guidelines for Proper Conduct of Animal Experiments (Science Council of Japan)</u>
- <u>Act on Domestic Animal Infectious Diseases Control</u>
- <u>Act on the Conservation and Sustainable Use of Biological Diversity through</u> <u>Rules on the Use of Living Modified Organisms</u>
- <u>Control on animal import</u>
- Animal Resources Section WEB site

13.3.10 Experiments Involving the Use of Radiation

Operation of experiments involving use of radiation must comply with the following

12

Rules and Acts, and other legal and regulatory provisions. In addition, completion of appropriate training programs and necessary procedures is also required before commencing any experiments in this category. Only the Radiation Protection Supervisor can handle the procurement procedures of Radioisotopes. Of note, the "Act concerning Prevention of Radiation Hazards due to Radioisotopes, etc." may require installation of equipment generating radiation be performed under a permit obtained from or a notification submitted to the regulatory authority in advance of the installation.

- <u>OIST Graduate University Rules for Prevention of Radiation Hazards</u>
- <u>OIST Graduate University Instructions on Prevention of Radiation Hazards</u>
- <u>OIST Graduate University Rules for Radiation Safety Committee</u>
- OIST Graduate University Instructions for Joint Use of RI Facility
- Manual for the handling of Radioisotopes
- Act Concerning Prevention of Radiation Hazards due to Radioisotopes, etc.
- <u>**RI WEB site</u>** (Occupational Health and Safety)</u>

13.3.11 Human Subjects Research

Operation of Human Subjects Research must comply with the following Rules and Guidelines, and other legal and regulatory provisions. In addition, completion of appropriate training programs and necessary procedures is also required before commencing the research. To handle Human Specimens, infection prevention measures against blood-borne pathogens must be taken. When procuring or acquiring Human Specimens from or providing them to other institutions, necessary procedures must be completed in compliance with all legal and regulatory provisions concerning import/export as well as the rules of a carrier of international shipment.

- OIST Graduate University Human Subject Research Rules
- OIST Graduate University Detailed Information on Human Subjects Research
- <u>OIST Graduate University Human Subjects Research Committee Rules</u>
- OIST Graduate University Human Subject Research Manual [Link]
- <u>Ethical Guidelines for Medical and Health Research Involving Human Subjects</u>
- Declaration of Helsinki (WMA)
- <u>The Belmont Report (The National Commission for the Protection of Human</u> <u>Subjects of Biomedical and Behavioral Research)</u>
- <u>Human Subjects Research WEB site</u> (Occupational Health and Safety)
- <u>Health and Labour Sciences Researches WEB site (MHLW)</u> (Japanese website)
- <u>Ministry of Education, Culture, Sports, Science and Technology, Bioethics and</u> <u>Biosafety WEB site (MEXT)</u> (Japanese website)

13.3.12 Chemical Materials

(Rules that apply to Radioisotopes (RIs) are described in the section of Experiments Involving the Use of Radiation [Link <u>13.3.10</u>].) Handling, use and storage of chemical materials at the University must comply with "OIST Graduate University Rules for the Management of Chemical Materials," the "Industrial Safety and Health Act" and other relevant legal and regulatory provisions. A user of chemical materials must be aware that safety requirements differ depending on each specific chemical. In addition, completion of all necessary training programs is required before commencing any experiments involving use of chemical materials.

- <u>Occupational Health and Safety WEB site</u>
- <u>Chemical Hazards Control Division WEB site (MHLW)</u> (Japanese website)
- <u>Chemical Management Policy WEB site (METI)</u> (Japanese website)
- National Institute of Technology and Evaluation (NITE)

13.3.12.1 Basic Chemical Safety Rules

- Before working with any new chemical materials, use Chemical Risk Information Platform (CHRIP) and Safety Data Sheet (SDS).
- Wear appropriate personal protective equipment (such as lab coat, rubber gloves, safety glasses and masks).
- Consider a lower risk alternative, if a chemical material that you intend to work with poses a high potential risk.
- Before use, again review the physical and chemical properties of chemical materials that you will work with, along with information concerning hazards and disposal methods.
- Plan and take safety measures to prevent potential accidents and mitigate hazards.

13.3.12.2 Export/Import of Chemical Materials

In Japan, the "Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc." has been established to evaluate whether new chemical substances to be manufactured or imported have harmful properties to humans, and to control the manufacture, import and use of chemical substances posing the risk of impairing human health through the environment. Those who intend to import chemical materials must contact the Chemical Materials Safety Supervisor at Occupational Health and Safety, and take necessary instructions from the Supervisor.

- <u>Chemical Materials WEB site</u>
- <u>Chemical Management WEB site (METI)</u> (Japanese website).

13.3.12.3 Transport of Chemical Materials

Transport of chemical materials is controlled by the provisions of the Postal Act, Terms and Conditions of Domestic Postal Services, Universal Postal Convention, IATA Dangerous Goods Rules, etc., and transportable goods are specified in these stipulations. Containers and packages for transport must comply with specific requirements.

Contact the carrier or shipping company, as they may decline to handle delivery of dangerous goods or quarantine items. See 4.11.7 in the Chapter 4, and the University's Security Export Control website.

13.3.12.4 Special Requirements for handling Chemical Materials

The chemical materials listed below have been deemed hazardous by regulatory agencies and are subject to stringent requirements regarding their handling, management and storage. In addition, if a non-listed chemical material is expected to pose a hazard similar to those associated with any of the below-listed chemical materials, then those safe handling requirements apply. Further, other relevant legal and regulatory provisions and OIST Rules must also be observed as well:

- (a) Organic solvents (Ordinance on the Prevention of Organic Solvent Poisoning)
- (b) Specified chemical substances (Ordinance on Prevention of Hazards due to Specified Chemical Substances)
- (c) <u>Poisonous substances</u>, <u>Deleterious substances</u> and <u>Specified Poisonous</u> <u>Substances</u> (Poisonous and Deleterious Substances Control Act)
- (d) Dangerous materials (Fire Service Act)
- (e) High pressure gas (High Pressure Gas Safety Act)
- (f) <u>Narcotics and Psychotropics</u> (<u>Narcotics and Psychotropics Control Act</u>)
- (g) Stimulants (<u>Stimulants Control Act</u>)
- (h) Nuclear fuel material (<u>Act on the Regulation of Nuclear Source Material</u>, <u>Nuclear Fuel Material and Reactors</u>)
- <u>OIST Graduate University Rules for the Management of Chemical Materials</u>
- <u>OIST Graduate University Rules for Poisonous and Deleterious Substances</u> <u>Management</u>
- <u>OIST Graduate University Rules for Management of Narcotics, Psychotropics</u> <u>and Stimulants</u>

- <u>OIST Graduate University Rules for the Management of Nuclear Fuel</u> <u>Materials</u>
- OIST Chemical Management Manual

13.3.13 Field Work

Field work involve risks and dangers which are different from those that may be present in indoor academic or research activities. Besides, access to work sites and collection of biological resources are subject to restrictions imposed by various legal and regulatory provisions. Thus, operation of field work require careful planning of the work, taking measures to ensure safety, and acting in strict compliance with the law. People who intend to conduct any field work must carefully read <u>OIST Rules for Field Work and OIST Field Work Manual</u> beforehand, and complete all appropriate training programs, acquire required qualifications, and receive designated health examinations.

13.3.14 Rules Regarding Health & Wellness

All University students and employees must pay attention to their own health and wellness in addition to complying with safety rules. In particular, each work area should be free of hazards and contain the proper equipment, should be appropriately lighted, should provide ergonomically correct tools, equipment, and furniture, and should be properly ventilated. Students and employees should also be mindful of the need for enough sleep each day, for a modicum of daily exercise, for a nutritious diet, and for periods of relaxation and recreation.

13.3.15 Rules Concerning Environmental Protection

University students and employees must perform their University duties in compliance with the following:

- 1. Reduce energy consumption and greenhouse-gas emission by using facilities and apparatus/equipment efficiently;
- 2. Manage/handle hazardous materials in keeping with legal and University requirements to prevent release to the environment.
- 3. Participate in training sessions concerning environmental protection.
- 4. Actively exchange information that promotes environmental protection activities.
- 5. Minimize waste and reuse resources where feasible.

13.3.15.1 Waste Management

Management of waste must comply with the following Rules and Acts, and other

legal and regulatory provisions. All training programs and procedures required for such work must be completed before commencing work. Appropriate protective gear must be worn in carrying out waste handling and disposal:

- OIST Graduate University Rules for Waste Management
- OIST Graduate University Manual for the Management of Waste
- Waste Disposal and Public Cleansing Act

13.3.16 Disaster Preparedness & Emergency Response Rules

Prevention of hazardous incidents and appropriate responses under an emergency situation is possible if each person knows what an emergency situation is like and what to do in response. Employees and students must maintain preparedness by periodically reviewing emergency response procedures, emergency contacts, evacuation routes, for the areas where they work. Employees and students must read and understand "<u>University Emergency</u>, Safety, Health Procedures & Guidelines." Employees and students should also prepare an individual emergency response plan based on the specifics of their work. Please refer to the "<u>Typhoon Guidelines</u>" in case of typhoon. For earthquake, take necessary preparedness measures in accordance with the "<u>Earthquake Preparedness Manual</u>."

13.4 Responsibilities

13.4.1 All Employees and Students

The University's safety management is based on the premise that all members of the OIST community shares responsibility for ensuring safety. Every member of the OIST community must comply with the University's safety, health, environmental protection, and disaster preparedness program.

13.4.2 Faculty members and Section Leaders

Faculty members and section leaders fall into the "foremen" under Article 60 of the Industrial Safety and Health Act (those who directly guide or supervise workers in operations), and have the following responsibilities: they are primarily responsible for the safety and environmental sanitation of their laboratory or workplace, and must have an understanding of the hazards associated with operation and/or research and disseminate the information on hazards to their members under their supervision; they also need to set and reinforce safety standards for their laboratory and/or office, having their members receive proper training on general and labspecific hazards and making sure that the members are using the appropriate equipment following proper procedures; they need to have their members receive designated health examinations and make sure that the members have completed the health examinations; they are also required to make sure that the members comply with relevant legal and regulatory provisions, and OIST Rules and follow proper procedures; further, during lab rotation and when appointed to a PhD Thesis Supervisor, they are primarily responsible for ensuring safety and environmental sanitation of the students.

13.4.3 Fire Safety Manager

Fire Safety Manager is responsible for fire prevention management for the University. This includes preparing a fire defense plan, providing drills for fire fighting and evacuation, enabling emergency reporting and evacuation, ensuring inspection and management of fire extinguishers and similar equipment, and other efforts to prevent fires and mitigate the effects of both man-caused and natural disasters.

13.4.4. Manager of Occupational Health and Safety

Manager of Occupational Health and Safety is responsible for ensuring research in the University compliance with requirements of the University's rules, and legal and regulatory provisions.

13.4.5 Manager of Animal Resources Section

Manager of Animal Resources Section is responsible for ensuring safety, and health, environmental protection, and disaster preparedness in Animal Facilities and Animal Experiments.

13.4.6 Manager of General Facility Management Section

Manager of General Facility Management Section is responsible for management and maintenance of facilities in a manner that will ensure the workplace safety and health, environmental protection, and disaster preparedness.

13.4.7 Research Personnel

In order to avoid unnecessary risk to themselves and/or other researchers, individuals engaging in research at OIST, regardless of their titles such as researcher, technician or student, are responsible for conducting experiments only when they acquire sufficient knowledge and understanding of health and safety issues associated with research activities. To this end, research personnel must actively participate in a variety of educational and training programs on safety and health, and follow appropriate instructions and advice from faculty members, section

leaders and personnel associated with OIST safety management duties, including principle investigators, as listed below.

13.4.8 Specific Research-Related Responsible Roles

- Biosafety Officer: Must ensure compliance with legal and regulatory provisions as well as the University Rules so that the operation of Recombinant DNA Experiment and Experiment Handling Pathogens and Toxins is appropriately performed in the University.
- Human Subject Research Officer : Must ensure compliance with legal and regulatory provisions, and guidelines as well as the University Rules so that the operation of Human Subject Research is appropriately performed in the University.
- Personal Information Officer for Human Subjects Research : Must manage personal information to ensure appropriate protection of personal information related to Human Subject Research in the University.
- RI Facility Director: Must manage and mitigate radiation hazards and ensure compliance with legal and regulatory provisions as well as the University Rules so that experiments using radioisotopes are appropriately performed in the University.
- Radiation Protection Supervisor : Assists the RI Facility Director, and must ensure compliance with legal and regulatory provisions as well as the University Rules such that the prevention of radiation hazards and the implementation of proper experiments are ensured.
- Chemical Materials Safety Officer : Must ensure compliance with legal and regulatory provisions as well as the University Rules so that the handling of chemical materials is appropriately performed in the University.
- Diving Safety Officer: Must ensure safety and compliance with legal and regulatory provisions, as well as the University Rules, for diving and snorkeling, through activities such as reviewing plans involving diving or snorkeling before institutional review by the Field Work Safety Committee, and providing safety training (including hands-on trainings) and giving guidance necessary for diving or snorkeling.
- Animal Experiment Coordinator : Must ensure compliance with legal and regulatory provisions, and guidelines as well as the University Rules so that the operation of Animal Experiment is appropriately performed in the University.
- Controlled Drug Management Officer : Must instruct and advise the users of Controlled Drugs on their use and management in the University.

13.5 Procedures N/A

13.6 Forms

13.6.1 Recombinant DNA Experiment

See Occupational Health and Safety WEB site

13.6.2 Experiment Handling Pathogens and Toxins

See Occupational Health and Safety WEB site

13.6.3 Common to Recombinant DNA Experiment and Experiment Handling Pathogens and Toxins

See Occupational Health and Safety WEB site

13.6.4 Animal Experiment

See Animal Resources Section WEB site

13.6.5 Human Subjects Research

See Occupational Health and Safety WEB site

13.6.6 Chemical Material

See <u>Occupational Health and Safety WEB site (chemical material)</u> and <u>Occupational Health and Safety WEB site (narcotics and psychotropics)</u>

13.6.7 Radioisotopes

See Occupational Health and Safety WEB site

13.6.8 Field Work

See Occupational Health and Safety WEB site (Field Work)

13.6.9 Equipment requiring a License or Submission of a Notification (Regulated Equipment)

See Occupational Health and Safety WEB site (Regulated Equipment)

13.7 Contacts

Policy Owner:

Secretary General Provost Vice President for Buildings & Facilities Management

13.7.1 Other Contacts:

Section Leader, Occupational Health and Safety Section Leader, Animal Resources Section Leader, Scientific Imaging Section Leader, Instrumental Analysis Section Leader, Engineering Section Leader, Facility Management