# Procedures of Handling and Housing Mice and Rats

in the Central Animal Facility Building

Institute for Animal Experimentation,
Tohoku Univ. Grad. Sch. Med.

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#### 1. Introduction

This guide outlines the procedures to properly perform animal experiments using mice and rats at the Central Animal Facility Building of Tohoku University Graduate School of Medicine. The users should understand that this is a core facility for multiple users, and thus should follow the instruction of usage as bellow. All animal experiments must be conducted in accordance with the "Regulations for Animal Experiments and Related Activities at Tohoku University" which is available from the home page of the Center of Laboratory Animal Research (https://www.clag.med.tohoku.ac.jp/clar/en/).

In this manual, we refer the Central Animal Facility Building of Tohoku Graduate School of Medicine as "the facility building". The word "the facility" stands for the core facility of animal experimentation of Tohoku Graduate School of Medicine. The facility for animal experimentation is operated by the Institute of Animal Experimentation of Tohoku University Graduate School of Medicine.

#### 2. Precautions

- •Users must continuously pay attention to health condition of laboratory animals and rearing environment (i.e. macro and microenvironment). Users also must consider the welfare of the animals.
- •Except for emergencies, users should not enter the areas where the users are not registered.
- The facility building is designed to be public facilities, and thus the users are permitted to monopolize the animal housing rooms and laboratories.
- •To prevent undesirable contamination, the user should abide the following rule:
  - Avoid handling rodents outside the facility.
  - Wear clean clothes when using the facility.
  - > Put on clean socks when using the facility.
- •Uses can enter only animal housing rooms in a same floor within a day. Users, who require to use the housing rooms in different floors in the same day, should contact to the service desk of the facility.
- Although users can bring a mobile phone for communication and experiment record, they must not submit photos or videos taken in the rooms to social media without permission. If the users requires images for publication or presentation, they must consult with the service desk in advance.

# 3. Procedures for Starting to Use the Facility

1) Attend the Educational Seminar for Laboratory Animal Management User should attend the educational seminar for laboratory animal management which is provided by the Center of Laboratory Animal Research, or the class of *Animal Experimentation* in the graduate school of medicine.

#### 2) Animal Experiment is Approved by the President

User should submit a plan for animal experimentation through the GA-lab web site. After permission by the president of Tohoku University, user can start to use the facility. When adding new participants to the plan, the experiment manager should register them.

#### 3) Register as an Experimenter in the Facility

After 1) and 2) are completed, user has to submit "Form 1: Registration of Facility Use" to the service desk of the facility. If users also maintain animals outside the facility, they must declare it.

# 4) Attend the Guidance for Facility Usage

After an animal room is assigned for usage, user should attend a guidance session for the facility usage, which is organized by the facility staff.

# 5) Acquire a Security Pass

After the guidance session, user obtains a security pass from the service desk of the facility.

- In case of having student ID, staff ID, or the university hospital security pass, users can use
  these ID cards as security cards. Users are registered as an experimenter by the facility staff
  after the guidance session.
- ii. Otherwise, there are two options:
  - If user has a plan to use the facility for <u>more than one year</u>, the user can obtain a "facility security pass". The user is required to provide information about name, affiliation, contact details (e.g. phone number, FAX number, e-mail address), date and time of the guidance session, and a photo (JPEG, more than 100kB, upper body) to the staff of the facility (Ms.Tomomi Kibushi: tomomi.kibushi.d8\*tohoku.ac.jp: converting \* to @).
  - If the plan is shorter than one year, "a temporary pass" will be provided from the facility.

# 6) Important Notices Regarding the Security Passes

•Lending the cards to someone else is prohibited.

- •It costs 2,200 JYN to reissue a facility security pass or a temporary pass.
- When users having a facility security pass or a temporary pass completes all experiments in the facility, users should immediately return the cards to the service desk of the facility.

# 4. Entering and Exiting the Facility Building

- Since number of the lockers are limited, we encourage the user to reduce the amount of luggage brought in the facility building.
- To maintain cleanliness of the facility building, users should keep one-way traffic flow. Movement in the opposite direction is strictly prohibited.
- Users need the security pass cards to enter the building as well as some areas of the animal housing room.

#### 1) Procedures of Entering and Exiting Animal Housing Areas

# [5th and 6th Floors]

# [Entering the area]

- i. Unlock the entrance door with your pass card, and enter the facility building.
- ii. Take off shoes at the entrance and put on the sandals in the shoe rack which is located just inside the inner door. After changing in the sandals, move to the locker rooms on the 1<sup>st</sup> floor.
- iii. Put your jacket such as a long coat and a big backpack in the large locker. Note, the number of large lockers is limited. The facility strongly recommends the user does not bring large luggage to the facility building. The facility is not responsible for lost or damaged luggage.
- iv. Wash the hands with hand soap in the locker room on the 1st floor.
- v. Go up to the 5<sup>th</sup> or 6<sup>th</sup> floor using an elevator or on the stairs on the south side.
- vi. Unlock the front door of the locker room on the 5<sup>th</sup> or 6<sup>th</sup> floor with the pass card.
- vii. In the locker room beyond door, put on gloves, a mask, a cap, a lab wear (jumpsuit), and shoe covers, and then pass through the air shower to enter the animal housing area.
- viii. Double up on the groves. Keep wearing double gloves within mouse housing area on 5<sup>th</sup> and 6<sup>th</sup> floor. Note, users must prepare spare gloves since number of outer gloves is limited.

#### [Exiting the area]

- i. In exiting the animal room, discard the outer gloves within the animal housing area.
- ii. Walk through the central corridor to the north elevator hall. Do not re-enter the animal housing area from the elevator hall.
- iii. Discard the mask and gloves in a trash can in the elevator hall.

- iv. Take the elevator down to the 1st floor. Users can also go down to the 1st floor by stairs.
- v. If users need to dispose of deceased animals, go down to the basement and put the animal in the freezer.
- vi. In the area in front of the linen room, take off the lab wear, cap, and shoe covers and put them in the container.
- vii. Return the sandals to the shoe rack at the entrance.
- viii. Take materials and tools, which are brought out from the animal housing area, through the pass room.
- ix. Take your luggage out of the locker and leave the facility through the entrance door.

#### [3rd and 4th Floors]

#### [Entering the area]

- i. Unlock the entrance door with the pass card and enter the facility building.
- ii. Take off shoes at the entrance and put on the sandals in the shoe rack which is located just inside the inner door. After changing in the sandals, move to the locker rooms on the 1<sup>st</sup> floor. We recommend that users put luggage in the locker at the entrance.
- iii. Put your jacket such as a long coat and a big backpack in the large locker. Note, the number of large lockers is limited. The facility strongly recommends the user does not bring large luggage to the facility. The facility is not responsible for lost or damaged luggage.
- iv. Wash the hands with hand soap in the locker room on the 1st floor.
- v. Go up to the 3<sup>rd</sup> or 4<sup>th</sup> floor using an elevator or on the stairs on the south side.
- vi. Put on gloves, a mask, a cap, a lab wear (jumpsuit), and shoe covers at the designated space.
- vii. Double up on the groves. Note, users must prepare spare gloves since number of outer gloves is limited.

#### [Exiting the room]

- i. In exiting the animal room, discard the outer gloves within the animal housing area.
- ii. Walk through the central corridor to the north elevator hall. Do not re-enter the animal housing area from the elevator hall..
- iii. Discard the mask and gloves in the trash in the elevator hall.
- iv. Take the elevator down to the or the 1st floor.
- x. If users need to dispose of deceased animals, go down to the basement and put the animal in the freezer.
- xi. In the area in front of the linen room, take off the lab coat (jumpsuit), cap, and shoe covers and put them in the container.

- xii. Return the sandals to the shoe rack at the entrance.
- xiii. Take materials and tools, which are brought out from the animal housing area, through the pass room.
- xiv. Take your luggage out of the locker and leave the facility through the entrance door.

# 2) Opening Hours of the Facility Building and Light-Dark cycle of the Animal Housing Room

- The facility building opens 24/7, 365 days a year.
- Users are restricted from moving in the facility during the regular inspection and facility construction.
- The animal housing rooms is continuously maintained under a 12 h light (AM8:00-PM8:00)-and-12 h dark (pm8:00-AM8:00) cycle.
  - In principle, users should avoid entering the animal housing rooms during the dark period. Users should understand that the light-dark cycle critically influences physical activity of the animals. In other words, perturbation of the cycles might have undesirable impacts on the data for other users who maintain animals in the same room.
  - When users enter the room during the dark period due to inevitable reasons, turn on the room light by switching "manual" or "on". In leaving the room, make sure the switch is on "automatic."

# 5. Management of Laboratory Animals

- 1) Managements of Laboratory Animals by the Care Staffs of the Facility The care are staff in the facility are engaged in the following tasks:
- Daily Check
   The facility staff checks feeding and watering once a day including holidays. The staff also checks macro-environment in the facility building such as room temperature and humidity.
- ii. Exchange of Bleeding Cage:
- The facility staff exchanges the cages once every 1-2 weeks.
- The facility staff may request that users avoid handling animals in the animal housing room during exchange of the cage. Please confirm the work schedule of the staff in advance.
- iii. Cleaning and Sanitization of the Animal Housing Area
- The facility staff cleans the animal housing rooms once a weekdays.
- The facility staff sanitizes with disinfectants once a week.
   Note. Users must clean and sanitize the animal housing area after usage.

#### iv. Monitor of Escaped Animals

When the staff find an escaped animal in the animal housing area, the staff captures the animal. The staff also notify the incident to users by e-mail. The users must appropriately treat the animals as soon as possible.

#### v. Monitor of Deceased Animals

- When the staff find deceased animals, the staff notify the incident users by e-mail. The staff also provides the information about date of finding, and number of the deceased animals on the cage label.
- In case of that users require the deceased animals, please ask the staff to preserve them at room temperature or to freeze them.

#### 2) Managements of Laboratory Animals by Users

#### i. Notice of Unusual Treatment

By writing notes on the cage label, users must show the unusual treatments including mating, feeding special diets, fasting, water deprivation, drug treatment, and avoiding exchange of the cage. Additionally, the users must report details of the treatments to the service desk of the facility.

ii. Maintaining Appropriate Density of Laboratory Animals in the Cage
From the standpoint of animal welfare, the facility does not allow users to maintain number
of mice and rats per cage is more than 5 and 2, respectively. Thus, users must keep the
appropriate number of animals in a cage. Moreover, users had better bleed a pair of mice or

#### iii. Handling Laboratory Animals in Multiple Cages

When users handle mice or rats in multiple cages, they must make efforts to prevent the spread of infection. Users should frequently sterilize gloves and workbenches with 70% ethanol which is equipped in the animal housing room.

#### iv. Reuse of Medical Tools

rats in a cage.

Users must not reuse items that have been used for other animals.

#### v. Diet and Water Supply

- The facility employs MR stock (Japan Nosankogyo) as a standard diet for mice and rats. Although the facility staff distributes it to the cage, users can also feed animals it.
- When users require to feed animals special diets, they have to purchase and provide it by themselves.
- Water is supplied via an automated watering system or water bottles dependent on the rooms.

#### vi. Cage Label and Records

- A cage label must be attached to the animal cage. The two different colored labels are
  used based on the genetic characteristics of the animals: pink and white ones are used for
  gene-engineered and non-gene engineered animals, respectively.
- The facility staff obtains basic information of the animals including user name, affiliation, approved number of the animal experiment, strain, numbers of males and females, and day of birth. When the facility staff notices incident such as animal death and birth of pups, the staffs let users know it by e-mail.
- According to the University Regulations, users must tag each gene engineered animal by proper methods. Moreover, they must record genotype information of each animal in proper media.

#### vii. Monitoring Laboratory Animals and Housing Environment

- Users must observe body condition of each animal at least once a week. When the user notices anything unusual in the condition, contact the animal care staff.
- · Users must confirm whether the water system supplies proper amount of water.
- Especially, they had better check the nozzle does not cause any leak.

#### viii. Items for Rearing and Handling Laboratory Animals

- The facility equips basic items for rearing such as new cages and water bottles in the animal housing area.
- Items which users can bring to the animal housing area are restricted to being essential for the experiment.
- · Users should not repeat bringing items in and out of the animal housing area.
- When the users require to bring a lot of items to the animal housing area, please contact the service desk and submit the Application Form for Animal Handling Items to the desk in advance.

#### ix. Used Rearing Items

- After confirming that the animal is not left in the cages, place them in the designated area with a note giving information about date, affiliation, user name, and number of cages.
- · Users return other used items to the original place.

#### x. Bleeding Label

- · When users bleed animals, attach a label indicating breeding in the cage.
- · After weaning, animals should be separated by gender to prevent overcrowding.
- In some cases, users had better provide a water bottle for young pups since young pups occasionally are not able to drink water from the automatic watering system.

- When users do not properly care for animals from a veterinary standpoint, the facility director urges improvements. If the users are not willing to improve the care, the director might prohibit them from utilizing the facility.
- xi. Campus Regulations for Pups of Gene Engineered Animals
  - · Users are not basically prohibited to exchange cages in which pups under 1 week old.
  - Make sure if any pup remains in the cage. Double-checking by different people is required during exchange of cages.
  - · Experiment manager must track the number of pups of gene engineered animals.
- xii. Transfer of Laboratory Animals between Different Animal Housing Rooms
  - To prevent spread of microbial contamination, users are prohibited to transfer animals by themselves between different animal housing rooms.
  - Users can request the facility to transfer animals to different rooms on the same floor within 6 weeks after a microbiological test.

#### 6. Deceased Animals

Users must set the end point for experiments according to the animal experiment protocol which is approved by the Dean of Tohoku University.

#### 1) Storage of Deceased Animals

Users have to offer storage of deceased animals to the service desk of the facility. Users can select to store the animals at room temperature or -20°C. Unless storage temperature is specified, the animals are incinerated after a temporal storage at -20°C. In any case, it is unacceptable to keep deceased animals in the facility building for a long time. After a certain period, the animals may be incinerated without permission.

#### 2) Incineration of Deceased Animals

- When users request to incinerate animals, they have to put only the animal in a plastic bag.
   Don not put other materials including aluminum foil and papers in it.
- Write on the surface of the bag following information: date, username, affiliation, and number of animals

#### 3) Animals that Died at the Facility Building

- i. Before leaving the facility building, go down to the basement.
- ii. Put animals in a freezer in the basement.

#### 4) Animals that Died Outside the Facility Building

#### a. Animals Maintained in the Facility Building

When users bring out animals from the facility building, and sacrificed them outside the building, users can request the facility to incinerate the animals.

- i. Enter the facility building through the entrance.
- ii. Wear shoe covers over sandals in front of the linen room.
- iii. Go down to the basement.
- iv. Put the animals in a freezer in the basement.
- v. Go back the same route.

Exception: Users who want to enter the animal housing area after disposing of deceased animals that have been sacrificed outside the facility building.

- i. Enter the facility building through the entrance.
- ii. Go up to the 2<sup>nd</sup> floor by stairs
- iii. Exchange sandals (blue to white) in the front room of the conventional area.
- iv. Dispose the animals in the freezer in the front room.
- v. Go to the animal housing area.

Important note. Do not enter the animal housing area of the facility building if users enter the animal housing areas of other facility building on the same day.

# b. Animals Maintained Outside of the Facility Building

Users can request to incinerate deceased animals that are maintained outside of the facility building. The service office accepts the offer from users 9:00-12:00 and 13:00-15:00 on weekdays. Users should understand that incineration of the deceased animals is subject to a fee.

- i. Borrow the north entrance key at the service desk of the facility.
- ii. Move exterior of the facility to the north entrance.
- iii. Open the door using the key
- iv. Change into sandals inside the door.
- v. Go down to the basement.
- vi. Weigh total weights of the animals.
- vii. Fill in the Request Form for Incineration of Laboratory Animals.
- viii. Put the animals in a freezer in the basement.
- ix. Go back the same route. Please make sure the north entrance is locked.
- Return the key and submit the Request Form for Cremation of Laboratory Animals to the service desk.

Note: to prevent microbial contamination, please make sure if the plastic bag is tightly closed.

# 7. Introduction of Laboratory Animals to the Facility Building

# 1) Purchase of Laboratory Animals from Authorized Suppliers

Users can exclusively obtain animals from companies as follows:

| Animal Bleeder               | Distributor              | Delivery Day      |
|------------------------------|--------------------------|-------------------|
| Japan SLC                    | Kumagai Shigeyasu Shoten | Tuesday, Thursday |
| The Jackson Laboratory Japan | Seimi                    | Tuesday           |
| CLEA Japan                   | CLEA Japan               | Tuesday, Friday   |
|                              | Sendai Office            |                   |

- i. Before ordering animals, users must confirm with the service desk of the facility that there is an available space for rearing in the animal housing areas.
- ii. Immediately after ordering animals, users must submit the "Application Form for Animal Delivery" to the service desk of the facility. The facility requires time to prepare the space more than 3 business days before the delivery date.
- iii. After the facility staff receives the animals from the distributors, the staff brings them to an animal housing room. Users can be notified via e-mail that the animals enter the room.
- iv. User must verify strain, age, sex, number and health condition of the animals by themselves as soon as possible. The facility consider that the ultimate responsibilities of animal housing lies with users.
- 2) Introduction of Laboratory Animals from Non-authorized Organization In principal, the facility does not permit to introduce live animals from organizations other than companies listed Section 7-1). Introduction of animals from non-authorized organizations to the facility is conducted as follows:
- Animals can be restored from frozen embryos or sperm using developmental engineering by the TARToL team in the facility.
- Animals can be cleansed by authorized companies: Japan SLC., CLEA Japan, and The Jackson Laboratory Japan. Alternatively, the Institute for Special Immunization can also cleanse the animals.

# 8. Transport of Laboratory Animals to Other Institutes

- Users should pay close attention to prevent animal from escaping. Under Japanese law, the escape of gene engineered animals is subject to penalties.
- In principle, animals carried out from the facility building cannot be brought back into the building.

#### 1) Transport of Live Animals to Other Facilities in Tohoku University

- i. Bring a shipping box, a shipping cage, cable ties, and a label with "Handle with Care" from the designated area to the animal housing room.
- ii. Place animals in the shipping cage in the room and make sure to tightly seal the lid.
- iii. Place the cage in the shipping box and firmly snap the lid with 6 hooks.
- iv. Secure the box with cable ties in two places.
- v. Attach the "Handle with Care" label on the lid of the shipping box.
- vi. Fill in the information in the rental cage logbook in the service desk of the facility.
- vii. After the delivery, users should clean the shipping box and cage in the user's department and return them to the pass room on the 1<sup>st</sup> floor of the facility building. They also describe the date in the rental cage logbook.

# 2) Transport of Live Animals to Other Organizations

- To transfer live animals to other organizations, users should consult with the service desk before shipment. In many cases, animal health certificate and facility report might be requested by a supply destination.
- Users must accept all responsibility for animal transportation including shipping box packages, arrangement of a logistics company, and picking up by a carrier.

#### 9. Shared Laboratories

- Shared laboratories are equipped on each floor of the facility building. Users can reserve the laboratory room through the homepage of the Institute of Animal Experimentation: http://www.ilas.med.tohoku.ac.jp/reserve\_exp.html
- All users must exercise sufficient caution for the safety of themselves and others when using the laboratory.

# 1) Attire in the Laboratory

Wear the same lab wear in the animal housing rooms on the same floor. Keep wearing double gloves in the laboratory. Users must prepare their own spare gloves.

# 2) Bringing Laboratory Animals Between Animal Housing Rooms and Laboratories

Users should take into consideration to minimize movement of animals between animal housing rooms and laboratories to prevent spread of microbial contamination. Users must place animals in a new cage in the animal room and pack it in a sealed plastic bag. They should also ensure not to fall any feces and bedding on the way to the laboratory.

#### 3) Cleaning and Disinfection of Laboratory

- · Clean and disinfect laboratory before and after experiments.
- · Completely dispose fallen hair, feces and bedding materials on the floor
- Wipe down benches and equipment in the laboratory with 70% ethanol.

# 4) Waste Disposal

User should properly dispose experimental wastes as follows:

- Infectious medical waste: Wastes contaminated with blood or bodily fluids should be sealed in a plastic bag, and disposed to a box for medical wastes.
- Non-infectious medical waste: Wastes without blood or bodily fluids can be directly disposed to a box for medical wastes.
- Sharps objects: Sharp objects including needles and scalpel blades are disposed in a dedicated container.
- Waste liquids: Do not drain waste liquids (e.g. formalin) in the sink. Users must take it back to own laboratory and properly dispose of it.

# 10. Bringing Items for Animal Experiments

- Experimental items that users bring to the animal housing area must be sterilized or unused and unopened. Instruments which is overhauled and cleaned can be also brought in
- After the experiment is completed, users must bring them back to their own laboratory. Items may not be left in the animal housing area as is.

# 1) Bringing Experimental Items to the Facility Building

- · Users must disinfect all items with 70% ethanol in the pass room on the 1<sup>st</sup> floor.
- After reaching 5<sup>th</sup> or 6<sup>th</sup> floor, users must put the items in the pass box, and then take out them from the animal housing area.

- In terms of 3<sup>rd</sup> or 4<sup>th</sup> floors, users can directly bring the items to the animal housing area.

  The facility strongly recommends that users had better disinfect them with ethanol solution before entering the areas.
- · Users can request the facility to autoclave items for sterilization.
  - Wrap the items in an autoclave bag or aluminum foil, write username affiliation, and number of animal housing room. After ensuring sealing, place them in the pass room on 1<sup>st</sup> floor. Users also have to ask the service desk to sterilize them in advance.
  - After sterilization, the facility staff transports them to the animal housing room where the users specify.

#### 2) Installation of Equipment

- Submit a "Application Form for Equipment Installation" to the service desk of the facility.

  After permission by the facility director, users can set up equipment in the facility building.
- The installation cost is 180 JYN/m<sup>2</sup> per one day. When the area is less than 1 m<sup>2</sup>,180 JYN is charged each day.
- Autoclavable equipment must be autoclaved by the facility before entering the animal housing area. Users must request it to the service desk. After sterilization, the facility staff brings it to the room where the users specify.
- Equipment which can not be autoclaved must be fumigated by sterile gases such as formalin and chlorine dioxide. Disinfect of the parts after disassembling is also permitted. In this case, users are responsible for sterilization.
- If equipment has been used in animal housing areas of other facility, users must disinfect it same as items which is unable to be subject to autoclave.

#### 11. Animal Care Fee

Per-animal care fee are as follows:

- 1) Mice: 8.6 JYN per day (in regular clean areas)
- · Animal infection laboratory rooms and special chemical treatment rooms: 26 JYN/day
- · Housing rooms for immunodeficient animals: 25 JYN/day
- 2) Rats: 28 JYN per day (in regular clean areas)
- · Animal infection laboratory rooms and special chemical treatment rooms: 87 JYN/day

When the number of animals is changed due to breeding or experiments, describe the current number of animals on the tally sheet posted on the door of the housing room.

# 12. Chemicals Requiring Careful Handling

Chemicals requiring careful handling must be managed in accordance with Japanese law. Such kind of chemicals include toxins, anticancer drugs, carcinogens, narcotics, psychotropic drugs and anesthetics.

- Users are not permitted to store the chemicals in the animal hosing rooms and animal laboratories in the facility. Users have to return the chemicals to their department.
- When users treat animals with narcotics or psychotropic drugs, user should record the amount of chemicals used each time. Please refer to the information from Safety Management Office of the medical school of Tohoku university.

#### 13. Microbial Controls

- The facility periodically performs microbial tests in every animal housing room.
- When the test animal is infected, all animals in the room are basically euthanized to prevent spread of bacterial contamination.
- In some cases, animals can be maintained after sanitation by sterilization. The policy was determined by discussions between veterinarian in the facility and the user.

# 14. Documents for Gene Engineered Animals

The Japanese government has ratified the Cartagena Protocol. Thus, users must obey the Act on the Conservation and Sustainable Use of Biological Diversity through Regulations on the Use of Living Modified Organisms. Moreover, the users are necessary to prepare MTA between Tohoku University and other organizations when the users obtain materials from other organizations.

#### 1) Animals introduced from other institutions

Users must provide the following:

- Approval numbers of the Animal Experiment Plan and the Genetic Engineering Experiment Plan
- · A paper copy of the approved experiment plans
- · Microbiological test data by an external organization for the past year
- · Animal welfare certificate

#### 2) Animals transferred from Tohoku University to other institutions

- Required documents are dependent on the accepting institutions. The facility can provide information on microbiological test data and animal welfare certificates.
- According to the Act on the Conservation and Sustainable Use of Biological Diversity through Regulations on the Use of Living Modified Organisms, users must provide an information sheet about engineered genes to the recipients.

# 15. Documents for Cell Experiments

The facility allows the users to conduct experiments with uninfected and well characterized cells. Thus, the facility requests them to provide information about the cells.

- · Detailed information about the cells which are provided by a company
- · The origin of cell resources
- Results of microbiological testing

# 16. Animal Experiments Involving Special Procedures

The animal which are reared in the facility building can be subjected to the following experiments .

- · Infection with identified microorganisms
- Administration of drugs requiring careful handling (e.g. treatment with carcinogens and anticancer drugs)
- · Gamma-ray irradiation
- Cell transplantation (e.g. transplantation with cells that have undergone microbiological testing)
- Inoculation with gene-engineered organisms and cells (e.g. infection with gene-engineered AAV).
- Bioimaging of animals using imaging devices (e.g. imaging analysis by μCT and fluorescence/luminescence imager)

Users must provide information about the animal experiments to the service desk of the facility

#### 17. Vistor Access Controls

 When users want to accompany visitors including vendors or collaborators into the facility, prior consultation and permission from the facility director are required.

- 2) All information such as name, affiliation, title, and contact information of the visitors should be provided to the service desk of the facility before the visit.
- 3) Users must accompany the visitors within the facility building. The visitors must follow the guidelines of the facility. The visitors are not permitted to observe animal experiments and take photos of the animals in the facility building.
- 4) Users must be fully responsible for acts by the visitors.

# 18. Procedures after Animal Experiments

- 1) Restore the area to its original condition.
- 2) Report the completion of the experiment plan to the service desk of the facility.
- 3) In case of Section 3-5)-ii: Return the security pass to the service desk.

#### 19. Evacuation Routes

In times of a disaster such as a fire or earthquake, ensure that animals do not escape from the animal room or laboratory and promptly evacuate using the stairs.

# 20. Emergency Contacts

- 1) In facing an accident and incident in the facility building, please contact the following telephone numbers using a phone available on each floor.
- ※ A PHS for medical doctors at Tohoku University Hospital can be used in the building.
- a. AM 8:30-PM 5:15 on weekdays: PHS numbers for the facility staff are as follows:
  - · 6th Floor: 16-5964
  - 5th Floor: 16-5962
  - · 4th Floor: 16-5960
  - · 3rd Floor: 16-5961
- b. After hours and days off: call to the security guard room of the medical school.
  - · Extension 8020
- 2) Emergency contact for physical damage such as injuries and anaphylactic shock.
  - Emergency treatment is required: the Advanced Emergency and Critical Care Center at Tohoku University Hospital (Open 24/7, 365 days a year)
    - Ext. 3899; Outside line, 022-717-7024

 When users want to know whether some treatments are necessary: the Advanced Emergency and Critical Care Center Outpatient Clinic at Tohoku University Hospital (Open 24/7, 365 days a year)
 Ext. 7024; Outside line, 022-717-7024

# 21. Contact Information

The service desk of the facility in the Institute of Animal Experimentation of Tohoku University Graduate School of Medicine:

- 1) Phone: 022-717-8175 FAX: 022-717-8180
- 2) E-mail Address (convert "\*" to "@")
  - · Service desk: ilas.med\*grp.tohoku.ac.jp
  - · Animal care staff: semiclean-c-ilas.med\*grp.tohoku.ac.jp
- 3) Homepage: http://www.ilas.med.tohoku.ac.jp