

Fear Control Learning System Usage Regulations

Approved by the Office of Research and Development on January 8, 2015

Article 1 The Fear Control Learning System Usage Regulations have been formulated to optimize instrument usage efficiency.

Article 2 The instrument includes the following:

1. Brand and model: Coulbourn Instruments.
2. Main components and functions:
 1. Digital infrared camera: Capable of detecting and analyzing the behavior of four mice simultaneously. The camera produces images with resolution greater than 640×480 pixels. The camera can quickly transmit and record infrared black and white images, which can be analyzed using software.
 2. Ambient light control functions: By using the software to control the ambient lighting, users can conduct visual stimulation experiments on mice.
 3. Electricity stimulation function: By setting the electricity input or output, users can control the electricity stimulation duration, period between each stimulation, and stimulation frequency.
 4. Sound stimulation function: The software can be used to memorize and set 10 types of stimulation noise or sound frequencies. Users can control the following sound properties: tone, rustling, volume, start and end time of the sound, duration from silence to maximum sound, repeated cycle of sounds, and stimulation frequencies.
 5. Software for operating the fear control learning memory system.
3. Secondary components and functions:
 1. Optogenetic components include the following:
 - (1) Optogenetic double-channel light stimulator with a low-resistance rotation axis.
 - (2) Optogenetic LED stimulator module:
 - Output light color: blue, 465 nm in wavelength, output of 24 mW.
 - Output light color: orange, 620–625 nm in wavelength, output of 10 mW.

Article 3 This instrument is to be used mainly by researchers from the Taipei Medical

University (TMU), TMU Hospital, TMU Shuang Ho Hospital, and Taipei Municipal Wanfang Hospital.

Article 4 The instrument is located at the Medical Laboratory Science and Biology Building 4F, Old Animal Laboratory.

Article 5 Reservations are made as follows:

1. Applicants who plan to acquire the usage right of the instrument must attend the Fear Control Learning System Training Course and practice operating the instrument 1–3 times on the Fear Control Learning System Operation Course. After passing operation evaluation at the Laboratory Animal Center, the participant must request Laboratory Animal Center Instrument Reservation System Permission to obtain usage rights.
2. Reservations should be made through the online instrument reservation system of the Core Facility Center or Laboratory Animal Center 1–10 days before the experiment date.
3. Opening hours:
 1. During school semesters: Monday to Friday 8:00–17:00.
 2. During winter and summer break: Monday to Friday 8:30–17:00.
4. During the instrument reservation period, the user should enter and leave the lab at the times registered online. Users who do not enter the lab at the start of the registered period and fail to cancel their reservation are charged according to the original reservation period.

Article 6 Instrument usage regulations are as follows:

1. Eating, drinking, smoking, and preserving food are prohibited in the lab.
2. Users are prohibited from using computers while wearing gloves.
3. Users should prepare CD-R disks for saving necessary data. USBs and floppy disks are prohibited.
4. Users must follow the standard operation process when turning the instrument on and off. After using the instrument, the user should clean the instrument and operation platform and remove experimental waste. Violations of this regulation will be evaluated by the Laboratory Animal Center; individuals confirmed to have violated the regulation will be banned from using all instruments for one month starting from the date of notice.
5. Upon the occurrence of a lab instrument malfunction, the user should quickly report the malfunction to the manager. Users

are prohibited from taking apart the instruments themselves. Users that cause instrument damage will be held responsible for the cost of repair.

6. The instrument usage payment standard only covers the basic material costs and does not include instrument purchase and maintenance costs. Users should ensure that their sample is well prepared before instrument usage. If the experiment yields unsatisfying results that are not the result of an instrument malfunction, the user is still required to pay the original instrument usage payment.
7. If the Laboratory Animal Center confirms that a user has violated the aforementioned or other regulations, the user's usage right and entrance right regarding all instruments and the animal housing, respectively, will be terminated from the start of the notice date.

Article 7 The instrument usage cost standard has been established to ensure optimal service quality and to increase the effective service years of each instrument. Based on the discussion of the Office of Research and Development, personnel or research units that use the instruments must share the expenses related to instrument consumables, maintenance, and operating personnel service.

1. Usage payment standard for TMU personnel: NT\$100 per hour
2. Usage payment method: According to the TMU Laboratory Animal Center Instrument Service Usage Payment Notice Regulation, a user who chooses to pay in cash should obtain the payment notice from the administrator after using the instrument and pay at the school cashiers section. After completing the payment, the user should keep the payment receipt to receive the experiment data and related information. Users who are supported by research projects or are paying through TMU budget write-offs should complete the reporting and write-off process within the one month after using the instrument.

Article 8 Instrument contact personnel:

Advisor professor: Teacher Yang Chih-Hao 27361661#3197

Laboratory Animal Center technician: Wang Chueh-Yi 27361661# 7153

Laboratory Animal Center technician: Wu Wen-Chi 27361661#7515

Article 9 The regulations are implemented after the internal discussion and approval of the Office of Research and Development. Similar procedure is adopted for

future revisions of the regulations.