Occupational Health and Safety Program

The University of Wisconsin-La Crosse, as an institution receiving Public Health Service funding and as an AAALAC accredited facility, is required to have an occupational health and safety program. The following procedures and guidelines have been implemented to assure the health and safety of all personnel involved in laboratory animal care and handling.

<u>Animal Handler Health Questionnaire</u> - all personnel working with vertebrate animals must fill out a health questionnaire and return it to the IACUC Administrator.

Please review all applicable training documents:

| Allergens | Aquatic Pathogens |
|--------------------------------------|---------------------|
| Bites, Scratches, and Other Injuries | Personal Hygiene |
| Pregnancy | Protective Clothing |
| Sharps – Handling and Disposal | <u>Tetanus</u> |
| Zoonotic Diseases | OHSP Website |

Allergens

Allergies to laboratory animals can be common among those who work with these animals. Pre-existing allergic conditions such a hay fever, eczema, or pet allergies may predispose persons toward developing allergies to laboratory or other animals. People can develop allergies to cats, dogs, rabbits, guinea pigs or farm animals. Allergies to rodents are also common. Allergies to laboratory animals can develop over months or can take years to develop.

Proteins that trigger allergic reactions can be present in the hair, dander, saliva and the urine of animals. Direct contact with the animal or inhalation of allergens can trigger allergic reactions. Rodent urine is particularly allergenic, and activities that cause the urine to be aerosolized, such as dumping cages, can increase exposure to the allergens. Reactions can be mild, such as itchy eyes, sneezing, or hives. These reactions can occur immediately after exposure or up to 8 hours later. Sometimes symptoms can progress to asthma and rarely, anaphylaxis (shock) reactions.

Latex gloves are also very allergenic and use of these gloves can cause anything from a mild contact dermatitis to severe allergic reactions in sensitive individuals.

Anyone with pre-existing allergies, or anyone who develops allergy symptoms that may be associated with animal contact, is encouraged to consult a physician. Reducing the amount

of exposure through various methods may be able to reduce symptoms or prevent the development of more serious reactions.

Prevention

- Use dedicated clothing and or a dedicated lab coat when working with animals. Do not bring contaminated clothing home.
- Use gloves and masks when working with animals to reduce the amount of exposure. Surgical type masks are not highly protective in sensitized individuals - more effective respiratory protection may be needed. Wash hands well before touching face or eyes and when leaving the animal area.
- Use non latex gloves if possible. The use of non-powdered latex gloves may be less allergenic.
- Consult with a physician if allergic symptoms develop.

Steps will be taken to prevent animal room related allergies from occurring. These steps include keeping hair and dust to a minimum by stringent cleaning guidelines. Disposable lab coats and exam gloves are required for animal care personnel to minimize contact with allergens and surgical masks are required when dumping soiled bedding.

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Aquatic Pathogens

There are very few diseases that people can catch from fish, but there are many organisms including bacteria, viruses and parasites that can contaminate the water environment of fish. People can be exposed to these organisms by ingesting fish, by ingesting contaminated water, by handling fish or through skin contact with contaminated water. Contaminated water can also infect wounds or open sore on the skin. Those with compromised immune systems may be more vulnerable to infections.

Prevention

- Wash hands well after handling fish or having hands in water where fish were present.
- Wear gloves if exposure to water will be prolonged.
- Consult a physician if a rash or other skin disease appears or if skin wounds appear infected.

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Bites, Scratches, and Other Injuries

There is a risk of bites, scratches or other injuries when working with any animal species. Proper animal handling techniques can reduce the risk, but injury is always a possibility. Any bites scratches or other injuries that break the skin should be washed well with soap and water immediately. Animal bites can be contaminated with bacteria including the tetanus bacteria, and it is important to be vaccinated for tetanus when working with animals. Any work related accident or illnesses that may be linked to animal contact must be reported to the ACUP Manager, the Student Health Center and the Protective Services Office. Any UW-L employee (including student employee's) must also report to the Worker's Compensation Coordinator in the Office of Human Resources and Diversity.

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Personal Hygiene

Good personal hygiene practices can greatly reduce the risk of occupational illness. Handwashing is probably the most effective and easiest method of reducing disease transmission. Hands should be washed after handling animals, their wastes, body fluids (including blood), tissue or any equipment or material that may have been in contact with animals. Hands should be washed before leaving the animal facility or laboratory and before eating, drinking, smoking or applying makeup.

Dedicated clothing should be worn when working with animals. This may include scrubs or simply a lab coat over street clothes. Dedicated clothing should not be taken home and should be laundered regularly. Clothing that has been contaminated with animal waste should be removed and cleaned immediately. When working with Biosafety Level 2 infectious agents or when working with non-human primates, additional personal protective clothing - including gown, mask, gloves, hair and shoe covers and eye protection - is required.

Eating, drinking and smoking are not allowed in the animal areas or the laboratories. The use of closed toed shoes in the animal areas or laboratories is also required. The use of masks and gloves when handling animals will help to reduce allergen exposure and is highly encouraged.

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Pregnancy

Pregnancy can affect the immune system and women who are pregnant may be more susceptible to certain diseases. There are also zooonotic diseases that can affect the fetus, causing birth defects or abortions. The very young and the very old may also be more susceptible to zoonotic disease. If you may be pregnant or have any other concerns about the status of your immune system, and you have contact with animals, please contact the Student Health Center. A physician can evaluate your individual risk(s) and make recommendations. Through the Occupational Health and Safety Program, it may be possible to put limits on the type of work you do or the species of animals you are in contact with, on a temporary or permanent basis. This would be done confidentially without revealing personal health information to your employer.

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Protective Clothing

Protective outerwear is provided for all animal care personnel. This clothing will serve to protect the employee from contact with animal waste, aerosolized particles, microbial agents and chemical contaminants such as cleaning materials. Protective clothing consists of disposable lab coats, exam gloves, shoe covers, boots, surgical mask and safety glasses. Emergency eye wash stations are provided in areas where personnel have contact with cleaning agents.

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Sharps – Handling and Disposal

The use of sharps, such as needles, scalpels and glass can present a risk to personnel if handled and disposed of improperly. In research settings, sharps may be contaminated with animal blood or body fluids, or with unknown substances. It is always safest to assume they are a potential hazard.

To prevent exposure of personnel to these agents and to prevent sharps and biohazards from showing up in the environment and/or being used by unauthorized personnel, proper disposal procedures must be followed. The standard guidelines are provided below.

Procedures

- Safety practices should be customized for a laboratory and written into the labs SOPs.
- The less you handle sharps, the less likely you are to have an accident.
- Use adequate restraint when working with an animal.
- Place your sharps in a carrying container prior to use, rather than carrying them in your hand or pocket.
- Do not recap or remove needles from syringes after use.
- Place all sharps immediately into a sharps container. (Bring one with you to the area you are working in. Yes, even to the dog's run).
- If you must recap a needle, use a one-handed technique. (Set the cap on the counter and slide the needle into it, or use a device for recapping the needle).
- If you must remove a needle use a mechanical device. (A forceps).
- Use an approved sharps container, and use it only for sharps (so you don't get in the habit of reaching in for your lunch). Seal it before it is completely full. (Rather than trying to stuff more in, get a new one when the old one is 3/4 full).

If you do injure yourself with a sharp object, clean the wound immediately and seek medical attention.

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Tetanus

Tetanus, also called "lock jaw", is caused by the spore forming gram positive anaerobic bacteria, *Clostridium tetani*. The spores are found in the environment and can be carried in the feces of many animal species. The spores can infect tissue through a puncture wound or a scratch. The disease causes painful muscle spasms and can have a high fatality rate.

Prevention

- Use standard first aid for any wound including washing the wound thoroughly. Seek medical attention if necessary.
- Personnel are required to have had a tetanus shot within the last 10 years.

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Zoonotic Diseases

A **zoonotic disease** is a disease that is passed between animals and humans. Only diseases that are passed due to direct contact with animals, their products or their waste will be discussed in this program.

Zoonotic diseases can be spread by touching an animal or the product of an animal such as its blood, tissue, urine, feces or other body fluids. Disease can also be spread through surfaces that have been contaminated by animals or their products. Contaminated needle stick injuries, or scratches or bites are a particular danger. Disease can also be spread through contact with the carcass of an animal or its bedding. Zoonotic disease can also be spread through the air or through contact with other mucus membranes (such as splashing something in the eye). The ways that specific diseases are spread will be discussed as each individual disease is discussed.

The occurrence of zoonotic disease in healthy adults is rare. Most zoonotic diseases can be prevented through common sense personal hygiene methods such as washing hands well after being in contact with any animal, any animal products, waste, bedding or carcasses. The use of personal protective equipment (PPE) such as gloves or masks is recommended in many cases. Eating, drinking, smoking, applying contacts or make up should not be done in areas where there are animals or their products, including the laboratories. The use of dedicated clothing or a lab coat and wearing closed toed shoes are additional common sense measures that will help to prevent the spread of zoonotic disease.

Persons who are **immunocompromised** may be more susceptible to zoonotic disease. Diseases such as the HIV virus or cancer can affect the immune system and make it more difficult to fight off zoonotic disease. Other diseases such as diabetes, kidney or liver disease or heart disease can also weaken the immune system. Persons who have been treated for cancer or other diseases with radiation or chemotherapy, or who have received organ transplants, are likely to be immunocompromised. Certain drugs such as cortisone type drugs may also weaken the immune system.

If you are affected by one of these diseases or conditions or have any other concerns about the status of your immune system, and you have contact with animals, please contact the Student Health Center. A physician can evaluate your individual risk(s) and make

recommendations. Through the Occupational Health and Safety Program, it may be possible to put limits on the type of work you do or the species of animals you are in contact with, on a temporary or permanent basis. This would be done confidentially without revealing personal health information to your employer.

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