Annual Safety Program (ASP) 2024 - 2025

Dr. Yarden Cohen's Research Group

Department: **Department Of Brain Sciences**
Building: **Arison Neurobiology Building**
Rooms: **150,151,152,153,154,155**

Chemical Materials:	Safety Plan:
Commonly used chemicals, Anesthetic gases	Regular PPE*: Safety glasses, lab coat, closed shoes, and gloves should be worn at all times when work is conducted using the chemicals. All volatile and toxic chemicals should be used in the chemical hood. Store according to the MSDS (sections 7 & 10). Additional instructions to the specific chemicals are provided below.
PFA (in solution), PFA (in powder) , DMF (Dimethylformamide), Isoflurane	Depending on the amount, frequency and the procedure itself, some of these chemicals require environmental and personal monitoring. The safety unit will coordinate monitoring if needed.
PFA (in solution)	Manipulations using PFA over 4% solution should be performed in the chemical hood. The solvent is highly eye-irritating, wear safety glasses at all times. Pipettes and other contaminated disposable labware, should be evaporated in the chemical hood and disposed as regular waste. Animals/animal tissues perfused in PFA should be disposed as animal carcasses into designated freezers using any plastic bag. Spills: Use vermiculite to absorb and dispose. Disposal: As organic waste with black sticker.
PFA (in powder)	It is highly recommended to purchase PFA in solution. If you must purchase solid, it is recommended to purchase granulated PFA instead of the powdered form, in order to reduce exposure by inhalation. Solid PFA should be handled in the biological hood wearing safety glasses. Powder spills: Sweep up and shovel without creating dust. Disposal: As organic waste using black sticker. Strict compliance with these instructions during pregnancy.
DMF (Dimethylformamide)	Work using DMF should be performed in the chemical hood. Causes serious eye irritation, make sure to wear safety glasses. Strict compliance with instructions during pregnancy. The solvent is highly flammable, keep away from hot surfaces, sparks, open flames and other ignition sources. Spills: Use vermiculite to absorb and dispose. Disposal: As organic waste with a black sticker.
Ethanol	Highly flammable liquid and vapor. Keep away from sources of ignition/ heat. Take measures to prevent the buildup of electrostatic charge. Small spill: open door/window and let it evaporate. Large spill (over 2 liters): open door/window and call 2999. Disposal: As organic waste using black sticker.

Chemical Materials:	Safety Plan:
Acetone	Handle acetone in a chemical hood. Gloves: for incidental contact use only latex gloves, nitrile gloves are not suitable as they have less than 4 minute breakthrough time. If you are cleaning parts with acetone, or have any other use of acetone where there is more than incidental contact, you must use butyl rubber gloves. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Small spill: open door/window and let it evaporate. Large spill (over 2 liters): open door/window step out of the room and call 2999. Disposal: As organic waste with black sticker.

Biohazard Materials:	Safety Plan:
AAV (only those prepared using helper virus)	Centrifuge is performed only in a Biohazard centrifuge. Avoid the use of glass/sharps: Use plastic pipettes and a blunt end needle. In case you must use sharps, contact the biosafety officer for specific risk assessment and guidelines. Standard operation procedure (SOP) should be written and followed. When aerosols are produced use an engineering control, such as a biological hood or AMO system, or wear particulate respirator and safety glasses (obtain at the safety unit). Decontaminate using 1:10 final dilution of sodium hypochlorite (WIS cat number 020015987).
Lentiviral vectors	Enhanced BL2, Specific training by Biosafety Officer is required before initiation.
Birds	Work using animals requires an approved IACUC application. All employees listed in the IACUC application should have a valid Tetanus vaccination. Specific instructions to hazardous materials used in the study using animals appears in the IACUC application.

Laser Systems:	Safety Plan:
Class 4	Class 4 laser should have a validated license (validated annually by a certified Laser laboratory). All laser employees should participate in an annual laser safety training. Protection measures will include appropriate protective eyewear, shields around the table and beam blockers. Protective safety glasses are specific to a given laser beam, employees should not use them with other laser systems without consulting the laser safety officer. Protection details appear on the glasses. Before you perform a laser beam alignment, remove your watch and all other beam reflecting jewelry. Please note that this class is also hazardous to the skin, take measures to prevent skin exposure. This class of laser present a fire hazard and therefore a suitable fire extinguisher should be kept in the lab. All employees should be able to operate the fire extinguisher.

Risks:	Safety Plan:
Noise Above 85DB (Sonicator, Compressed air)	Hearing protection equipment should be used while working in an environment producing harmful noise. Protecting equipment may be collected at the safety unit.
Soldering	The soldering process produces hazardous fumes (colophony and metal fumes). The fumes cause eye and upper respiratory tract irritation. If possible, use lead free/low lead solder to reduce the risk. Engineering control should include a side active suction, if this is not possible in your setup, you must consult the safety unit for proper respiratory protection. Make sure to wear safety glasses during soldering. Hygienic practice: No eating or drinking near soldering area, keep soldering area clean and wash hands after soldering. Dispose the metals as an inorganic waste with purple sticker.

Risks:	Safety Plan:
Autoclave	Autoclaves use high pressure and high temperature steam for sterilization. The potential safety risks for the operators include: Heat burns from hot materials and autoclave chamber walls and door. Steam burns from residual steam coming out from autoclave and materials on completion of cycle. Hot fluid scalds from boiling liquids and spillage in autoclave. Hand and arm injuries when closing the door. To insure the health and safety of personnel using the autoclave, it is important for each department to maintain autoclaves and to train personnel in their proper use. Unloading Autoclave: Unload autoclave using these PPE: heat-insulating gloves, safety glasses, lab coat, and closed-toe shoes. Ensure that the cycle has completed and both temperature and pressure have returned to a safe range. Stand back from the door as a precaution and carefully open door no more than 3cm. This will release residual steam and allow pressure within liquids and containers to normalize. Allow the autoclaved load to stand for at least 10 minutes in the chamber. This will allow steam to clear, and trapped air to escape from hot liquids, reducing risk to operator. Remove items from the autoclave and place them in an area which clearly indicates the items are 'hot' until the items cool to room temperature. Do not agitate containers of super-heated liquids or remove caps before unloading.