



**Principal Investigator:**

Joseph Lai (R-G05, x8965)

**Secondary Contacts:**

Mike Walter (A-104, x8951)

**Emergency Information:**

Staff Member: 202-370-7738 (cell)

BBR (Gary Bors): 202-510-8577

BBR (Quintin Miller): 202-590-6188

All other emergencies: 911

**Purpose:**

This area is designed for laser cutting and polishing.

*All laboratories and facilities on the Broad Branch Rd. campus are controlled areas. Specific training must be completed and documented before working in this laboratory / facility.*

**Specific Hazards:**

- Class 3b and 4 lasers are present. Skin and eye contact should be avoided at all times.
- Polishing wheels spin up a large, heavy iron wheel up to 10,000 rpms.
- High voltage is used to operate the Bettonville laser cutter.
- Chilled water is used to cool the Bettonville laser. Please be aware that high voltage and water do not mix well.
- Compressed gas is present. Please refer to the compressed gas section for more information.

**Rules of Operation:**

- All potential users in this space must be trained by the PI or a qualified staff member.
- Have a plan before cutting/polishing.
- Non-diamond material cutting should be discussed with the PI beforehand.
- Maintenance and repair are handled only by the PI and trained staff.
- Do not tamper or defeat interlocks of the laser cutter.
- When in doubt, stop and contact the PI or a qualified staff member.
- Safety is the responsibility of every user that is working in this lab space.
- SDS and this safety plan will be located at the entrance of the lab.
- After hours usage of the lab is permitted only by prior approval from the PI.
- Report all accidents/incidents as soon as possible to the PI or to a safety committee member.

**Compressed Gases**

- Compressed gasses have an inherent pressure hazard and can create hazardous conditions.
- All cylinders must be secured using wall straps, stands, or carts designed for this purpose.
- Regularly check connections and hoses for leaks.
- Notify PI or the safety committee of damaged or defective cylinders and regulators.
- Changing or transportation of cylinders in this lab should not be performed by users.



**Emergencies:**

In case of fire:

- Sound the fire alarm
- If trained to fight an incipient fire, use the appropriate fire extinguisher (likely located in the hallway). Make sure to keep your back to an unblocked exit.
- Evacuate the building.
- Call 911 to notify emergency services.
- Do not let unauthorized personnel enter the building.
- Wait for the all clear from emergency response personnel or authorized persons (e.g. Gary Bors or the Directors).

**Laboratory User**

*I agree that I have thoroughly read and understood this laboratory safety document. I have access to this safety information at all times when I am working. I have been trained to be able to identify the hazards to which I may be exposed and to follow the work practices and procedures discussed in this document. I certify that I will conduct my research work safely and that I will be responsible for following stated safety policies.*

\_\_\_\_\_  
User Name (Print)

\_\_\_\_\_  
User Signature

\_\_\_\_\_  
Date

**Principal Investigator**

*I certify that the information presented in this safety document is accurate and complete. I agree to comply with all safety procedures and to fully train and supervise all researchers under my direction.*

\_\_\_\_\_  
PI Signature

\_\_\_\_\_  
Date