**LAB-SPECIFIC TRAINING -- Zachariah Research Group**

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|  | **Training Goal** | **How Lab Fulfills Training Goal** |
| **Training** | Ensure completion of all safety training before beginning lab work. | Each member of the Zachariah group must complete the following before working in the laboratory   * Complete the Chemical Hygiene Training for Laboratory Workers – available online via DES website * Complete the Hazardous Waste Generator – available online via DES website * Complete the Lab-Specific Training (attached sheet with SOPs) * Sign safety sheet available from Dr. Zachariah |
| **Safety Roles** | Know the health and safety responsibilities of the principal investigator, lab safety coordinator, and all group members. | PI – M. R. Zachariah  Personal safety – you  Laboratory safety - PI and you and all your colleagues in the lab. |
|  | Know where to find material safety data sheets (MSDS), standard operating procedures (SOP), user manuals for equipment, journals, textbooks, etc. | The University procedures for safety training and waste management can be found at: http://www.des.umd.edu/  Lab specific SOPs are located in either the Martin hall or Chemistry labs. |
| **Lab Operations** | Know the Chemical Hygiene Plan SOP requirements and the lab’s process for developing and reviewing new SOPs. | You must sign the attached checklist verifying that you have read and understand the relevant SOPs associated with your specific tasks in the laboratory. If you pursue additional tasks during the course of your studies that are not identified on the original CHP, you must update your training by reading and understanding the additional SOPs and sign a modified check-off sheet. |
| **Lab Operations** | Laboratory areas are to be kept clean. | It is **YOUR** responsibility to make sure that the areas you use are clean and that you leave them clean when you are done. |
| Know the lab’s chemical ordering, usage, and disposal procedures. | Everyone is responsible for safe, environmentally sound waste disposal procedures. You must know the Hazardous Waste procedures of the University and the Lab. Check with the Hazardous Waste Coordinator for coordinating waste pickup. |
| Know the required personal protective equipment (PPE) for working in the lab, including where lab-provided PPE is stored (i.e. safety glasses/goggles, cryogenic gloves, etc.). | PPE is required for all potentially hazardous activities in the lab. Safety glasses, lab coats, blast shields, and gloves are provided in the lab and are monitored by the Safety officer. You are responsible for replacing non-functional PPE and can consult with or Dr. Zachariah for guidance.  Refer to the Personal Protective Equipment Program at <http://www.des.umd.edu/os/ppe/program.html>  Personal Protective Equipment Hazard Assessment form is located at: <http://www.des.umd.edu/os/ppe/ppeform.pdf> |
| Know the specific hazards that exist in the lab | The Zachariah lab has many potential hazards, including: toxic gases, toxic liquids, toxic solids, , strong acids, strong bases, flammable solids, liquids and gases, electrical hazards, powerful lasers. You must be familiar with the materials and techniques you will be using in your research. It is imperative that you understand the risks of operation and the correct measures of safe procedure with every laboratory action. |
| Know the procedures for being trained on and authorized to use the lab’s specialized equipment, e.g., centrifuge, rotary evaporator, glove box, etc. | Lab specific equipment will have one person responsible for monitoring proper use. However, it is your responsibility to make sure you fully understand the proper and safe operational procedures of every item you use. |
| Know the lab’s “Do’s and Don’ts” | **Do not:**  •Perform dangerous activities without other lab members present  • Work without the necessary PPE  • heat a closed system  • work unless you are sure the relevant safety equipment is fully functional (i.e. hood, CO detector, etc.)  • try to fight a fire. If a fire occurs – get out and make sure every one else evacuates the lab.   * Work with more than 50 mg of an energetic material with prior approval from MRZ and a thorough understanding of the hazards. * Work with the pulsed YAG lasers without protective goggles at all times and be competent in there use. * Work in lab without closed toe shoes. * Work in lab without safety glasses * Work in lab without lab coat. |
| **Emergency Equipment & Procedures** | Know where to find safety equipment. | Make sure you know where the safety equipment is located. |
| Know the procedures for chemical, fire, and weather emergencies. | * Any and all lab incidents must be reported to MRZ immediately. |
| Know the incident and injury reporting procedures. | Fire alarms and 911 are functioning at all times and should be used when necessary. All incidents must be reported to MRZ and incident reports filed with DES. |
| Lab member:                       Lab member’s signature:                            Trainer’s name:                      Training date:             Signature of PI: | | |