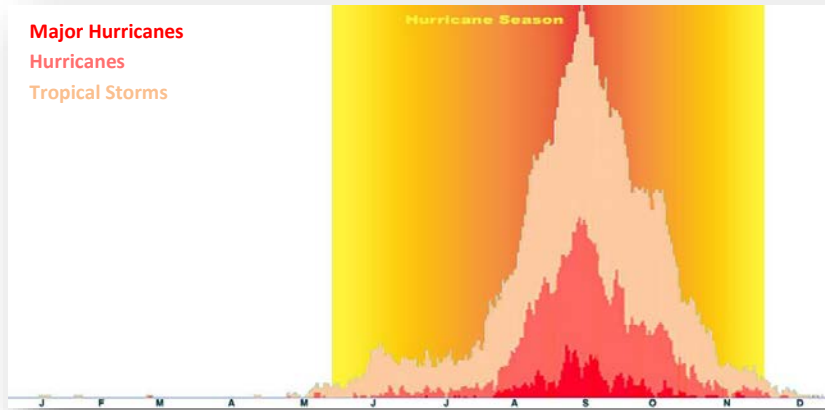




Disaster Preparedness Checklist “Prior to Hurricane Season”

Time spent preparing your research area(s) and employees for a potential disaster is an essential role of the Principal Investigator (PI). Safeguarding your life’s work, personnel and laboratories is vital for your continued research.

This checklist has been developed to ensure that you, your employees and your work area(s) are suitably prepared in the event of a disaster.



As we are unable to predict when a disaster may strike, each PI should complete this checklist *annually* prior to the hurricane season (June through November).

Although this checklist focuses on the preparation of your work area(s), employees and lab equipment prior to the hurricane season, the steps you will have carried out upon completion of this document will better prepare you for the various potential

disaster situations that could occur here at the University of Miami.

This checklist is the first in a series of three that also includes the *Disaster Preparedness Checklist: When a Storm is Imminent* and the *Disaster Preparedness Checklist: Post Disaster*.

PI Name: _____

Location (Building(s)): _____

Lab/Room #(s): _____

Disaster Preparedness Checklist: Prior to Hurricane Season

1.0 PREPARING SAMPLES & LAB EQUIPMENT

- 1.1 Register and label critical equipment (Not currently applicable for RSMAS or Gables campuses)
- 1.2 Inventory of each freezer/refrigerator/cold room
- 1.3 Inventory of items stored in liquid nitrogen
- 1.4 Identify critical samples, reagents, media, etc., and prepare to send offsite
- 1.5 Label division of Veterinary Resources (DVR) cages (where applicable)
- 1.6 Check safety equipment (where applicable)

2.0 PREPARING LAB/OFFICE

- 2.1 Update emergency supply inventory
- 2.2 Keep full liquid nitrogen supply tanks on hand (please note that AIRGAS cannot deliver where sustained winds are 35 m.p.h. or higher)
- 2.3 Purchase extra CO₂ cylinders for tissue culture
- 2.4 Make copies of your critical documentation and data and be prepared to take them with you
- 2.5 Photograph office/lab areas and equipment (essential for potential insurance claims!)

3.0 PREPARING ADMINISTRATION/PERSONNEL

- 3.1 Review/maintain individual unit plan via UReady (<http://www.miami.edu/uready/>), distribute the unit plan to all personnel, and periodically review its contents.
- 3.2 Update emergency contact information online through MyUM
- 3.3 Appoint an alternate in your absence e.g. if you intend on “getting out of dodge” during a hurricane
- 3.4 Designate a contact person *and* an alternate when school reopens
- 3.5 Develop and maintain an emergency phone tree for your lab
- 3.6 Compile laboratory “Go Packs”

4.0 NIMS TRAINING

- 4.1 Confirm all personnel with need have completed the appropriate level of training

5.0 REFERENCES

Useful Information:

[Division of Veterinary Resources](#)

[Office of Emergency Management](#)

[Environmental Health & Safety \(EHS\)](#) [EHS Lab Safety Manual](#)

[\(EHS\) Hurricane Preparations for Laboratories Website](#)

[Security](#) [UM's Business Continuity Plan](#)

1.0 **PREPARING SAMPLES AND LAB EQUIPMENT**

1.1 **Register and label critical equipment** (Currently applicable only to the Medical campus. For RSMAS or Gables campuses contact Facilities or Security)

- Applicable to critical equipment that is valued at greater than \$2,499 or necessary for the laboratory's function (e.g., -80 freezers).
- Ensure that all critical equipment has been registered with UM Security and labeled accordingly
 - Every lab should visit the link listed below and complete the information to inventory critical equipment such as freezers, refrigerators, and incubators in case of a loss of power during a storm ([Critical Equipment Registration](#))
 - Upon registering, log all four-digit identification numbers associated with your critical equipment
 - Print and post registration forms on critical equipment (which includes all emergency contact information)
 - Post normal operating values (temp, % of CO₂ etc.) on critical equipment
- Check the critical equipment alarm
 - Has your alarm been tested?
 - The alarm circuit is usually tested during initial installation. To ensure that the alarm system is fully active, the PI is asked to trigger the alarm and contact Security (243-7233) to confirm that this is indeed a "test" and for the dispatcher to verify that they have received systematic notification of their equipment failing
 - If you require assistance testing your alarm contact the Security Systems Supervisor at 305-243-8375

1.2 **Inventory each freezer/refrigerator/cold room**

- An inventory sheet should contain all product/sample information, including serial/order numbers, location, quantity and value. The value of such items is required for FEMA-related claims in the event of storm-related loss or damage. A template and sample inventory sheet is attached in Appendix A.
- Ensure that the inventory sheet for your freezer/refrigerator/cold room is current and reflects the content of the freezer
- If biological agents exist in your freezer, please make sure you complete or update the appropriate EHS form. ([Biological Agent Registration Form](#))
- Review applicable Materials Safety Data Sheet (MSDS). ([MSDS Online](#))

1.3 **Inventory items stored in liquid nitrogen**

- Ensure that the inventory sheet for items stored in liquid nitrogen is current and reflects the content and to the owner of the material

1.4 **Identify critical samples, reagents, media, etc., and prepare to send offsite**

- In the event that only a certain amount of items can be saved, we recommend that you identify (label) those samples, reagents, media etc. that are necessary for your work/mission ("If you only had 5 minutes to grab items, what would you want to take?").
- Please note that in the case of a pending hurricane, power outage, fire, etc., it may be necessary to move or relocate your samples.
- Consider sending critical samples out of the area through pre-existing arrangements with bio-repositories and non-local collaborators/colleagues. If you do not currently have any arrangements, you may establish such through a University-approved vendor such as Kryosphere: <http://www.kryosphere.com> or Novare: <http://www.novarebiologistics.com>

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- The Transgenic Animal Core Facility at the Sylvester Comprehensive Cancer Center offers freezing of mouse embryos. Please contact the core for further information (<http://sylvester.org/shared-resources/transgenic-animal>).

1.5 Label Division of Veterinary Resources (DVR) cages (where applicable)

- Refer to DVR standard operating procedure ([click here](#))

1.6 Check safety equipment (where applicable)

- Record the last inspection date of the fire extinguishers in your work area(s)
 - Per NFPA 10 (Standard for Portable Fire Extinguishers)
 - Fire extinguishers shall be inspected manually at a minimum of 30-day intervals (i.e., monthly) – performed by in-house personnel (Physical Plant)
 - Fire extinguishers shall be subjected to maintenance/recertification at intervals of not more than 1 year (i.e., annually) – performed by a certified vendor
- Verify that eye wash stations and emergency shower near your work area(s) have been tested recently. Contact Physical Plant for testing.

2.0 PREPARING LABS/OFFICES

2.1 Update emergency supply inventory

- Supplies on hand should include plastic sheeting and tape to cover computers, lab equipment, desks, etc., and materials to protect the facility, contents, and for post-disaster cleanup.
- Suggested Hurricane Supplies may be purchased through the Grainger Catalogue on UM's [Ariba](#) ordering site:
 - Plastic storage box
 - Flashlight and batteries
 - 10 x 100' roll of plastic sheeting
 - Clear sealing tape (55yds)
 - XXL Ziploc bags (package of 3)
 - 12 x 16' tarp
 - Package of 12 bungee cords
- Plastic sheeting, tape and other supplies are also available in limited quantities from the Department of Physical Plant. They may be purchased with an IDR through the [Store Room](#), located in the basement of the Rosenstiel Medical Research Building.

2.2 Keep full liquid nitrogen supply tanks on hand

- Please note that our gas suppliers (AIRGAS, PRAXAIR) cannot deliver where sustained winds are 35 m.p.h. or higher

2.3 Purchase extra CO2 cylinders for tissue culture

2.4 Make copies of your critical documentation and data and be prepared to take them with you. This includes:

- On/off campus inventory of existing samples (including embryos)
- Information on your data - where it is secured; how it is backed-up
- Details of the type and quantity of animals (located on/off campus – where applicable)
 - **Note: No DVR animals or animal records should be removed from campus by a PI at any time**
- Inventory of all your equipment (including location)
- Photos and/or video of all equipment. Detailed information on taking photo documentation can be found in a document created by the Office of Emergency Management ([link](#)).

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- Grant information including study, agency, and award number

3.0 PREPARING ADMINISTRATION/PERSONNEL

3.1 Review/maintain individual unit plan via UReady (<http://www.miami.edu/uready/>)

- Distribute the unit plan to all personnel, and periodically review its contents.

3.2 Update emergency contact information online

- Emergency Contact and Evacuation Information is maintained via MyUM. Ensure that your information is up-to-date and accurate. If, for whatever reason, your location changes, please update the system as soon as physically possible. Detailed instructions can be found in document generated by the Office of Emergency Management ([link](#)).

3.3 Appoint an alternate in your absence, e.g., if you intend on “getting out of dodge” during a hurricane.

3.4 Designate a contact person *and* an alternate when school reopens

3.5 Develop/maintain an emergency phone tree for your lab

1. PURPOSE

- To ensure all employees are safe and receive up-to-date information in the event of an emergency.

2. SCOPE

- Provide detailed instructions on the use of the phone tree and the responsibilities of the individuals listed within the tree during an emergency.

3. PROCEDURE

- The laboratory manager (or designated employee) compiles emergency phone trees based on information provided by employees. The phone trees contain the following information for each employee – Name, Address, Office Phone, Home Phone, Cell Phone, and E-mail Address. A blank phone tree is included in Appendix B.
- Emergency phone trees will be issued on an annual basis, or when new information is approved and/or updated. It is the responsibility of each employee to ensure correct and current information is provided to the laboratory manager (or designated employee).
- When the emergency phone trees are issued, we strongly recommend that the “primary contact” perform a trial run to ensure their respective tree functions correctly.
- In the event of an emergency, the phone tree is to be used as follows:
 - The primary contact (employee at the top of the tree), initiates the starting sequence.
 - In-turn, each employee calls the next contact in line relaying the information they receive from the prior employee.
 - In the event *the assigned contact does not answer, the employee must leave a message advising the contact to call the “primary contact” and then call the next employee in the sequence.*
 - When the subsequent contact is called, the employee must advise they were unable to contact John/Jane Doe and ensure the contact relays this information to the next in the sequence until the end of the loop.
 - When the loop is closed (i.e., the last employee in the sequence calls the primary contact) the primary contact will then know who could not be contacted and can follow up accordingly.
 - It is the responsibility of the primary contact to ensure all their assigned employees are contacted during the event of a disaster.
 - The phone tree is considered closed when the primary contact has confirmed the status of his/her unit to the Principal Investigator.
 - In the event either an employee is out of town or they decide to leave town due to the severity of the pending hurricane, it is *their responsibility* to ensure that either the

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primary contact or the employee shown above them on the emergency phone tree is aware of this situation. This will help relieve any confusion that may occur during an emergency.

3.6 Compile laboratory “Go Packs”

- “Go Packs” should be used by employees returning to work immediately/shortly after the disaster has passed. The kits are intended to protect staff during the inspection of work areas when assessing potential damage post-storm. It is recommended that these packs include the following:
 - Personal protective equipment including gloves and facemasks
 - A disposable camera
 - A notepad to help document your findings
 - Risk Management’s “Hurricane Claim Forms” should also be added to this pack <http://www6.miami.edu/risk-management/Forms/Hurricaneclaimworksheet.pdf>

During an emergency, we recommend all employees consult the University’s Web site at www.miami.edu/prepare, the Hurricane Hotline, and the media for updates and other important information.

4.0 NIMS TRAINING

4.1 Confirm all personnel with need have completed the appropriate level of training

- Confirm that all personnel who have any role in emergency/disaster mitigation, planning, response, or recovery have completed the appropriate level of National Incident Management System (NIMS) training: <http://ummcsd.med.miami.edu/SECURITY/emergencies/NIMS.htm>.

5.0 REFERENCES

Emergency Information Numbers

Campus	Hurricane Hotline	UM Police Department / Security	
		Non-Emergency	Emergency
Coral Gables	305-284-5151	305-284-6666	911
Medical	305-243-6079	305-243-7233	305-243-6000
Rosenstiel (RSMAS)	305-421-4888	305-421-4766	305-710-7991

TOLL FREE HURRICANE HOTLINE 1-800-227-0354

Emergency Information Websites

- UM Emergency Preparedness: www.miami.edu/prepare
- UResearch Emergency Preparedness: uresearch.miami.edu/prepare
- Medical Campus Emergency Preparedness: www.hurricaneupdate.med.miami.edu
- UReady Continuity Planning: www.miami.edu/uready
- Recover Miami: recover.miami.edu
- National Hurricane Center: www.nhc.noaa.gov
- Florida Division of Emergency Management: www.floridadisaster.org

Appendix A

Freezer/Refrigerator/Cold Rooms and Liquid Nitrogen Inventory Sheet Template and Examples

INVENTORY SHEET (EXAMPLE)

(Freezer/Refrigerator/Cold Rooms)

Cane Lab		-80 Freezer Inventory		
Location		RMSB 1001	Serial/ID #	A0123456
Emergency Contact		Dr. Cane	Contact #	555-555-5555
Shelf #1	Stocks -Biohazard Level # -In case of spill, clean using appropriate decontamination method In case of freezer malfunction, check to see if items can be stored in +4 C refrigerator or on dry ice.			
Shelf #2	MISC –, Samples and Kits -Limited Biohazard. -In case of spill, use standard lab procedures. -In case of freezer malfunction, samples and kits can be stored on dry ice, .			
Shelf #3	Rack 1 -Misc & Samples -Limited Biohazard - In case of Malfunction dry ice	Rack 2 - archive samples -Limited Biohazard - Malfunction dry ice or refrigerator - Hurricane ship out	Rack 3 - archive working boxes -Limited Biohazard - Malfunction refrigerator or dry ice - Hurricane ship	Rack 4 -purified stocks -Biohazard # - Malfunction refrigerate - Hurricane ship at least one aliquot each
Shelf #4	-Serums -Temporary samples storage. -Limited Biohazard. -In case of spill, use standard lab procedures. -In case of Freezer malfunction, store on dry ice			
Shelf #5	Antibodies - Temporary sample storage. -Limited Biohazard. -In case of spill, use standard lab procedures. -In case of Freezer malfunction, on dry ice. - Hurricane ship one sample of each custom antibody			

INVENTORY SHEET TEMPLATE

(Freezer/Refrigerator/Cold Rooms)

Lab			
Location		Serial/ID #	
Emergency Contact		Contact #	
Shelf #1			
Shelf #2			
Shelf #3			
Shelf #4			
Shelf #5			

INVENTORY SHEET (EXAMPLE)

(Liquid Nitrogen)

Cane Lab		Liquid Nitrogen Inventory			
Location		RMSB 1001	Serial/ID #		A012345
Emergency Contact		Dr. Cane	Contact #		555-555-5555
RACK #4					
Box	Samples	#Tubes	Label		Misc. Info
1	Cell line C	8	Box C	P5	10/17/2007
	Cell line H	9	Box C	P 36	04/15/2008
2	Cell line H	4	Box B	p29	4/2/03
	Cell line G	5	Box B	p61	1/27/05
	Cell line A	1	Box B		
3	Misc, samples.				
4	Antibodies D	3	Box A	p12	01/13/2006
	Samples H	5	Box A	p100	5/26/2006
5	Empty				
6	Empty				
7	Empty				
8	Empty				
9	Empty				
10	Hurricane drop box. 1 aliquot of each of the above.				

INVENTORY SHEET TEMPLATE

(Liquid Nitrogen)



_____ Lab		Liquid Nitrogen Inventory		
Location			Serial/ID #	
Emergency Contact			Contact #	
Box	Samples	#Tubes	Label	Misc. Info
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

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Appendix B


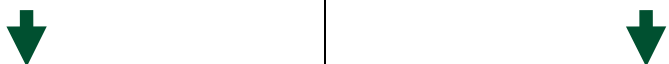
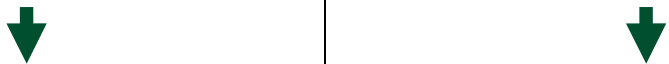
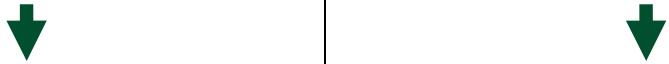
Phone Tree Template

EMERGENCY PHONE TREE

UNIVERSITY OF MIAMI MILLER SCHOOL OF MEDICINE

Department Name: _____

The Department Head will activate the phone tree by calling the first two people listed, who will call the individuals directly below them. *Each successive employee is to call the person directly below them.* If you are unable to personally speak to the person, leave a message and call the next person listed. The person you left a message for must call Department Head after receiving your message as well as call you back. The last person on each column is responsible for calling the Department Head to inform them that the phone tree has been successfully completed.

Department Head: Title: Office: Home: Mobile:	
	
Employee: Title: Office: Home: Mobile:	Employee: Title: Office: Home: Mobile:
	
Employee: Title: Office: Home: Mobile:	Employee: Title: Office: Home: Mobile:
	
Employee: Title: Office: Home: Mobile:	Employee: Title: Office: Home: Mobile:
	
Employee: Title: Office: Home: Mobile:	Employee: Title: Office: Home: Mobile:

****Everyone must call the Department Head after the storm has passed.**

Rumor control: 305-243-6079	Emergency: 305-243-6000 (Security)
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Date phone tree was updated: _____