

# Developing and Sustaining Compliance Inspection Programs

How to get it funded!

Eoin O'Grady PhD CRSP

Manager, Laboratory Safety and University Biosafety Officer

Sep 18, 2019 Canadian Biosafety Symposium, Toronto



#### **Preparation for the new licencing regime...**

2012 Phase I, II Consultations		2014 Draft Regs & Stds		
	2013		2014	
	Phase III Consultations		0.25 FTE hired	





#### **Biosafety Manual**

Section:	Biosafety Program	Issued By: 🔭	Environmental Health and Safety
		Issued Date:	2006-01-01
Part:		Revised Date: 2017-09-15	
Fart:		Reviewed Date:	
Pages:	16	Revision #:	2
		Issued/Revised By:	EO



Wednesday, April 20, 2016

To: Biosafety Permit holders, Laboratory Supervisors, Biosafety Committee, Associate Deans (Research) for Medicine, Veterinary Medicine, Science, Engineering, Kinesiology, Artsjand Nursing

Biosafety Program – mandatory training to be completed by lab personnel

Mandatory training (online and classroom)

This is a reminder that the <u>Biosafety Committee</u> unanimously endorsed mandatory online Biosafety Program training in September 2015.





# BIOHAZARD LABORATORY SAFETY RULES

- 1. Know, understand and comply with all Laboratory Safety Rules.
- 2. Know, understand and comply with all components of the Biosafety Program and the University's Occupational Health and Safety Management System (OHSMS).



#### **Biosafety Cabinet (BSC) Safety Notice**

Decontamination of the BSC is required prior to:

- decommissioning and salvage
- 2. physically moving the cabinet
- 3. maintenance work, filter changes or performance tests.

Recertification is required annually and/or after relocation. BSCs are designed for work by one person at a time.

Email biosafety.cabinets@ucalgary.ca to schedule any of the above requests with a qualified contractor.

Date: \_\_\_\_\_\_ Bldg: \_\_\_\_\_ Room No: \_

ucalgary.ca/safety

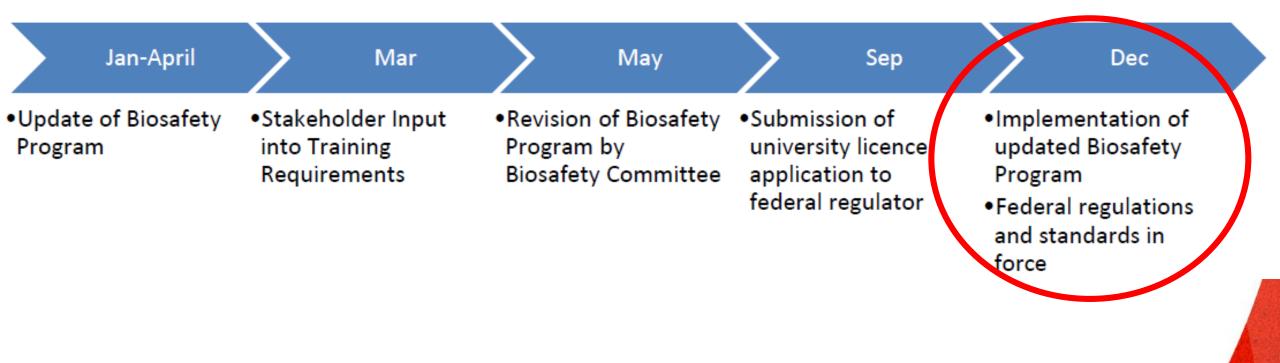


4. For mucous membrane exposure, flush site(s) with water or saline.



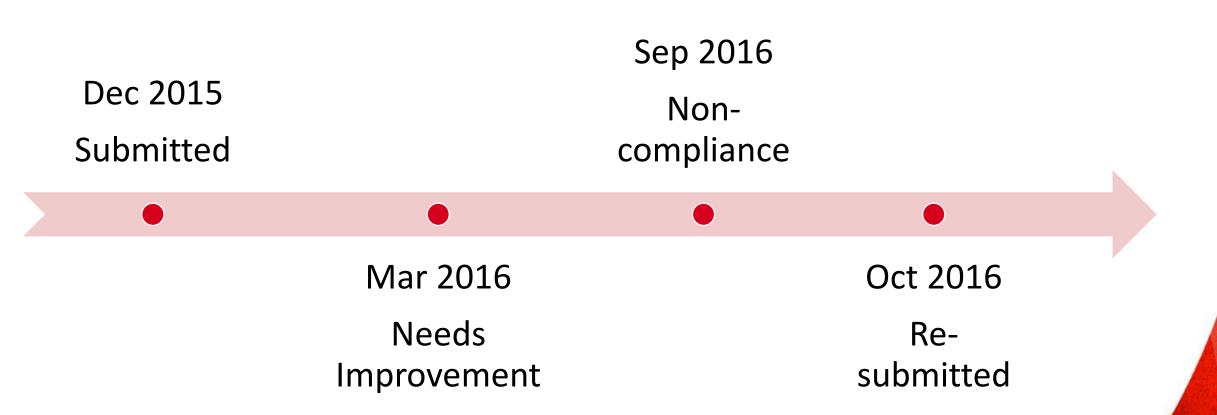
5. Immediately get assessed by a physician.







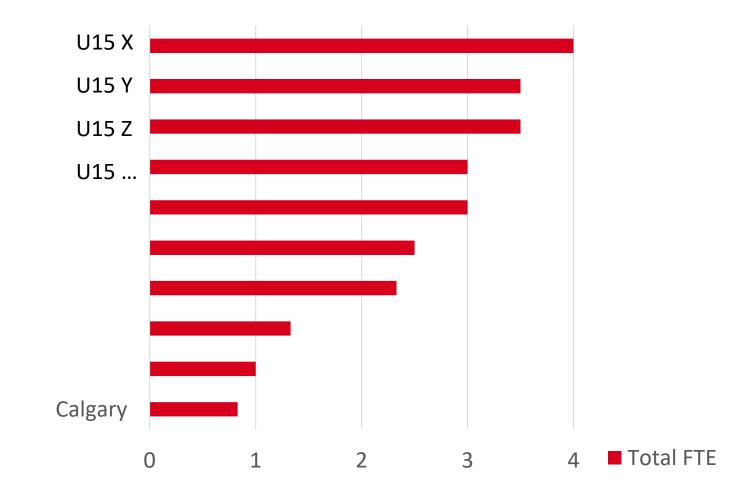
# The licence application "needs improvement"...



"The University BSO has made a business case for additional personnel resources to be allocated to the Biosafety Program. That business case is under consideration at present. **In the interim, a part-time Biosafety Program Advisor is hired to assist with compliance inspections**."

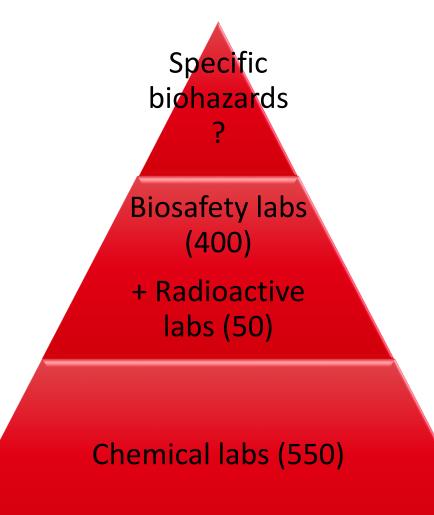


#### UCalgary ranks 12<sup>th</sup> among U15 in terms of biosafety FTE





#### **Inspections to cover diverse lab activities**







### Purpose of biosafety compliance inspection program

- Monitor compliance for specific biohazards
- Improve compliance assurance
- Improve and ensure consistency
- Report on non-compliances

#### **Scope developed against criteria**

**CANADIAN BIOSAFETY STANDARD** 





Government of Canada du Canada

Gouvernement

for Facilities Handling or Storing Human

and Terrestrial Animal Pathogens and Toxins

Public Health Agency of Canada Centre for Biosecurity

**Biosafety Directive** for Human Immunodeficiency Viruş (HIV), Human T-lymphotropic Virus (HTLV), and Related Simian Retroviruses

#### **Arthropod Containment Guidelines, Version 3.2**



#### Let's prioritize our biohazard risks



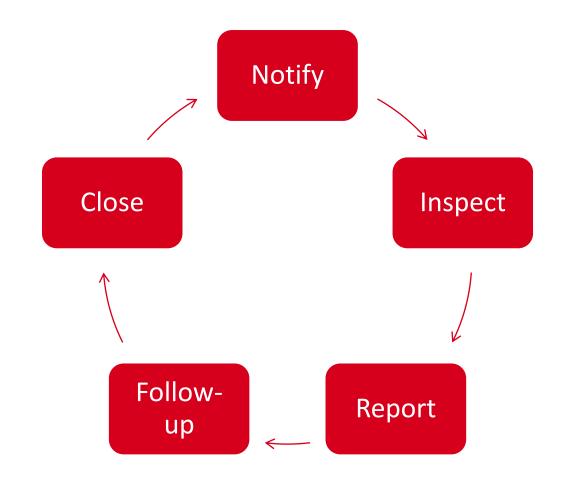
Specific Biohazard Types

- **1**. HIV
- 2. Prion (CL2)
- 3. Aquatic pathogens (AQC2)
- 4. Sand fly (Arthropod)
- 5. Small Animal Containment (CL2-SA)
- 6. Small Animal-Prion Containment (CL2-SA-Prion)
- 7. Large Animal Containment (CL2-Ag)



#### Adhere to annual inspection process







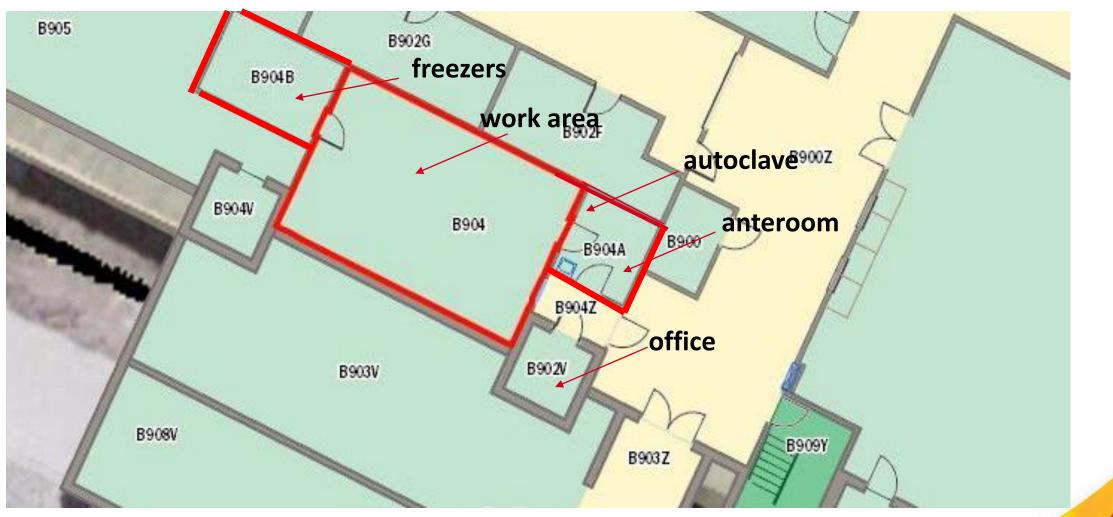
#### Variety and complexity of lab types across campuses

SA HIV Arthropod Prion SA-Prion Aquatic Ag





### Floor plans help in understanding the facility



#### Visuals help others unfamiliar with facility



# 

**AUTHORIZED PERSONNEL AS LISTED WITHIN CHEMATIX** 



#### **ENTRY REQUIREMENTS:**

UNIVERSITY OF

No access for Caretaking, Facilities, Campus Security, or others unless escorted by Authorized Personnel. Medical surveillance program in effect (Aquatic).

#### **PRIMARY CONTACT PERSON:**

Dr Heather Jamniczky 403-210-6647 or Campus Security 403-220-5333 Date: April 23, 2018 Building: BI

Room No: 08

Keep information current. Review annually and revise as required. Biosafety Manual Project-Specific Biohazard Signage Issued: 04.05.2018



#### Visuals (Laboratory-specific)







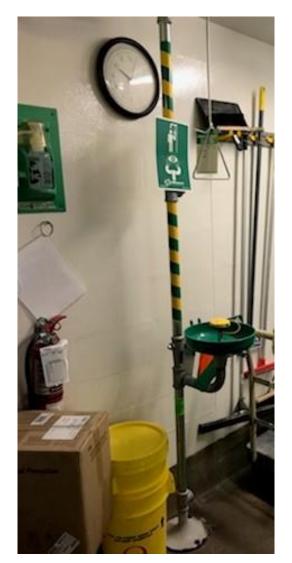
#### **Central, staffed autoclave facilities are leaders...**





# UNIVERSITY OF

#### **Common findings prompt further action**



- Fabric chairs
- Open lab doors
- Exposed wood
- Housekeeping



- Non-reproducible key to access labs
- Training records
- SOPs
- Decontamination records

#### **Common Findings (Facilities-specific)**



• Eyewash, ceiling lights, floor/wall notches, sealant, fire extinguishers









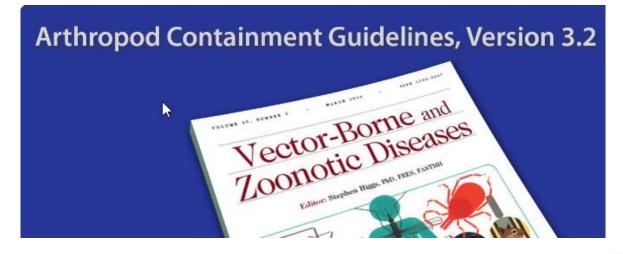
#### Sand fly facilities creates new challenges

- Sand fly is "alien" CFIA
- Sand fly is a vector for *Leishmania*
- Leishmania is a parasite PHAC



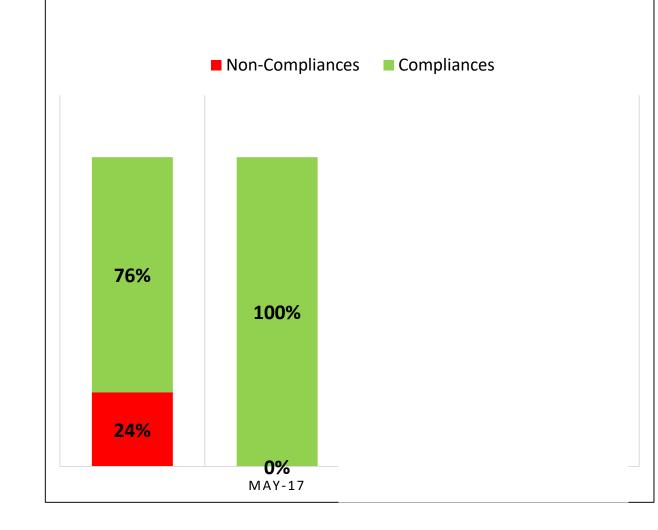
#### Sand fly facilities creates new challenges

- Sand fly is "alien" CFIA
- Sand fly is a vector for *Leishmania*
- Leishmania is a parasite PHAC
- What kind of SOP is needed for "Escaped sand flies"?!





# Sand fly facility has some performance problems



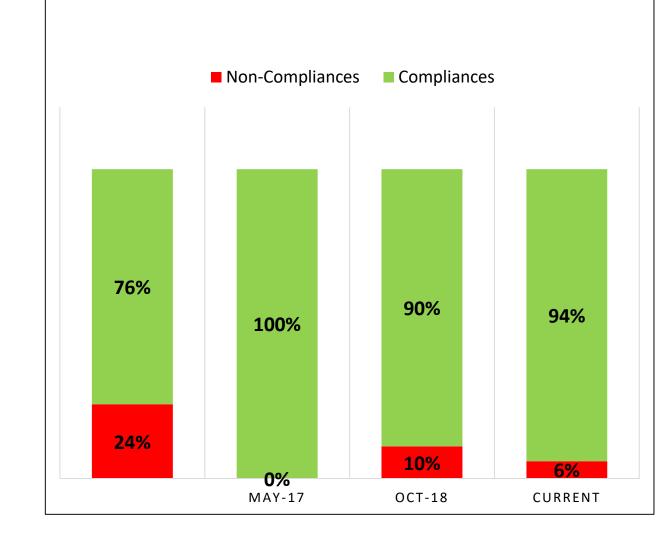
#### 30 deficiencies in 2017 including:

- Material to buy/install
- SOPs
- Medical surveillance
- Training records





# Sand fly facility has some performance problems



#### 30 deficiencies in 2017 including:

- Material to buy/install
- SOPs
- Medical surveillance
- Training records

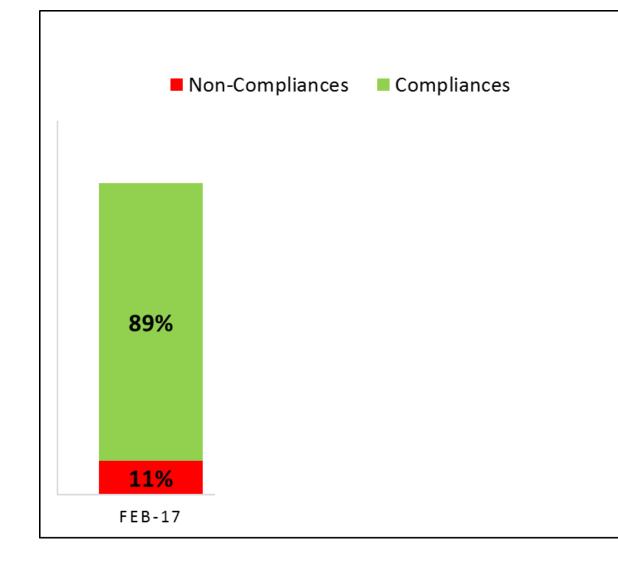


#### 13 deficiencies in 2018 including:

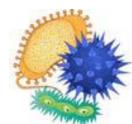
- SOPs
- Housekeeping
- Training records



## Find deficiencies before the regulators – HIV (RG3)

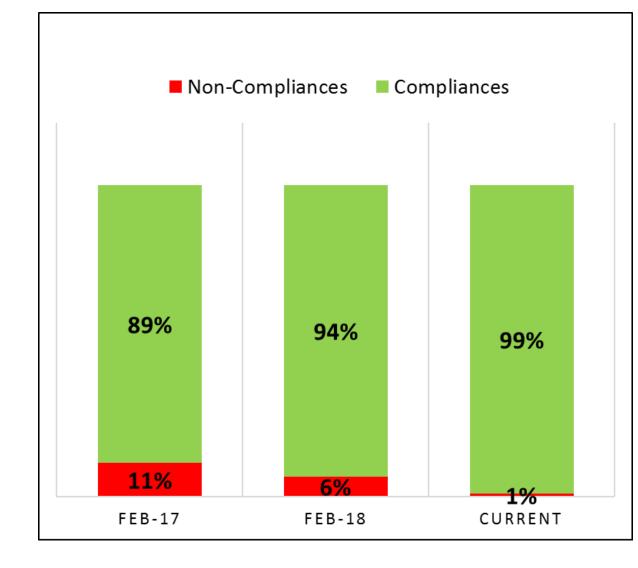


- 7 deficiencies including:
- Housekeeping
- Minor SOP updates
- Eyewash maintenance





## Find deficiencies before the regulators – HIV (RG3)

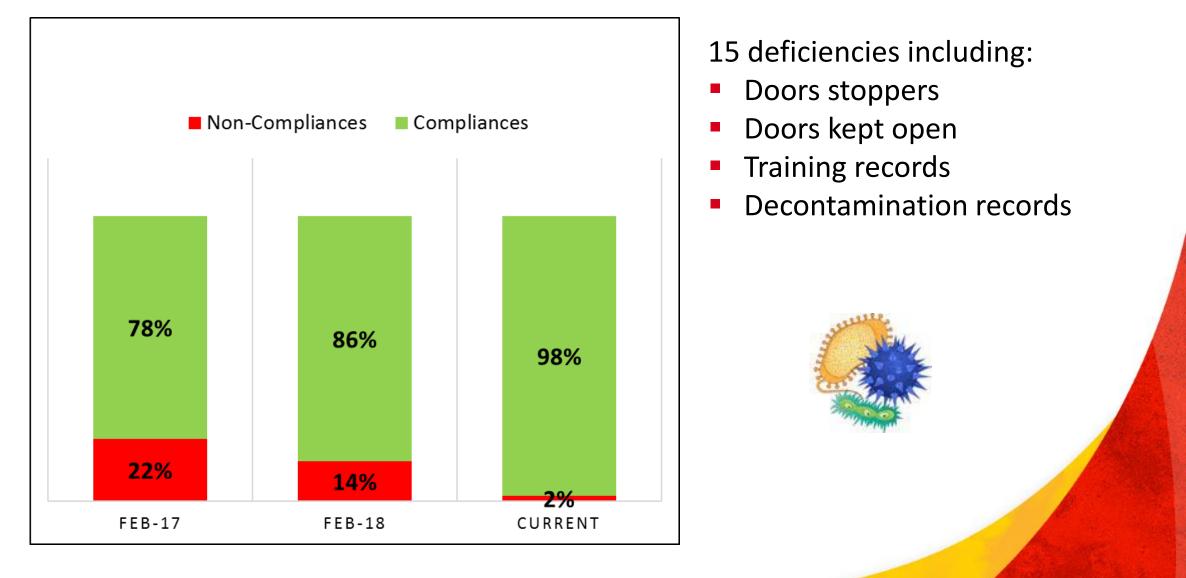


- 7 deficiencies including:
- Housekeeping
- Minor SOP updates
- Eyewash maintenance



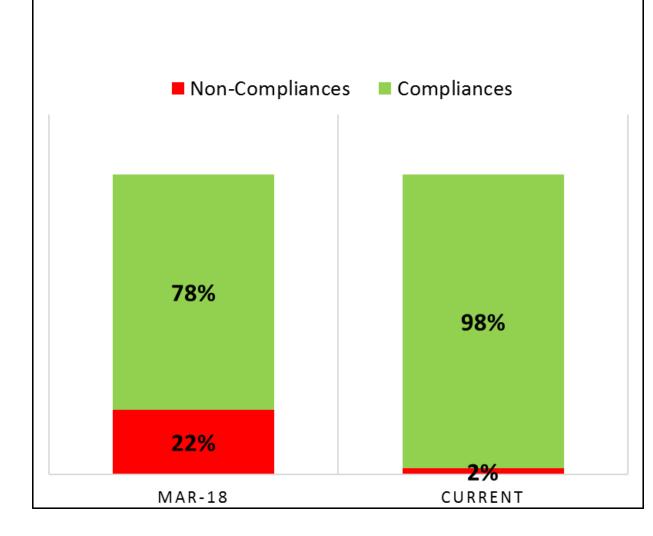
#### **Double the deficiencies vs other HIV (RG3) lab**







#### **Prion facility has significant wear and tear**

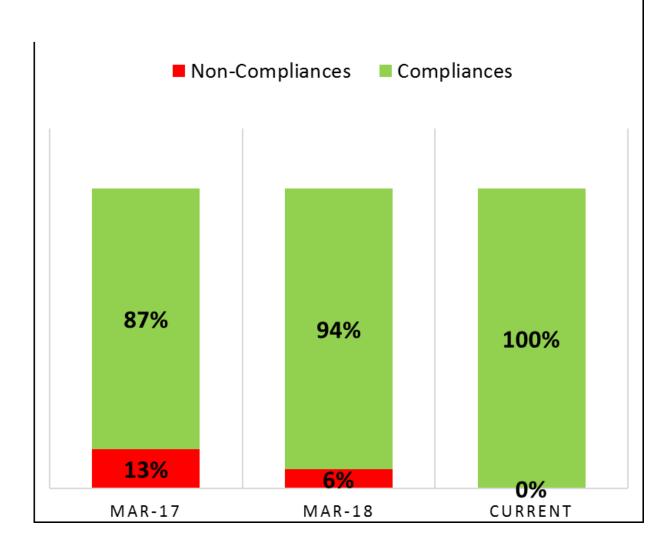


32 deficiencies including:

- Sealant broken
- Access control
- Training records
- HACF/Lab manual/SOPs update
- Decontamination process



#### Year-over-year improvements are realized



5 deficiencies including:

- Housekeeping
- Labelling for transport
- Training
- Gasket repair







**Oct 2016** - the business case for a part-time, permanent position is endorsed by:

- Director, EHS
- AVP, Risk
- AVP, Research
- University Veterinarian
- Chair, Biosafety Committee

## Year-over-year improvements are realized

**Oct 2016** - the business case for a part-time, permanent position is endorsed by:

- Director, EHS
- AVP, Risk
- AVP, Research
- University Veterinarian
- Chair, Biosafety Committee

#### Dec 2018, position is funded







#### Purpose of biosafety compliance inspection program

- Monitor compliance for specific biohazards
- Improve compliance assurance



- Improve and ensure consistency
- Report on non-compliances





#### Purpose of biosafety compliance inspection program

- Monitor compliance for specific biohazards
- Improve compliance assurance



- Improve and ensure consistency
- Report on non-compliances

