Research, Revenue and Reputation
Your work is too important to leave it unprotected.

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It takes 20 years to build a reputation and five minutes to ruin it. If you think about that, you’ll do things differently.
- Warren Buffett
Session Agenda

**Part One – Risk Analysis**
- Research Exposures
- Causes of Loss
- Direct Physical Damage
- Indirect Areas of Impact

**Part Two – The Takeaways**
- Loss Control Checklist for Research
- Ignitable Liquids Fire Test Video
- Insurance and Valuation
- Conclusion
Research Exposures

What are the Research EXPOSURES at your organization?

- Stem Cells
- Tissue Samples
- Plants
- Proteins
- Enzymes
- DNA
- Eggs
- Blood/Urine
- Rockets

- Drones
- Chemicals
- Soil
- Reagents
- Viruses
- Bacteria
- Animals
- Ice Cores
- Data
Causes of Loss

Human Error – Unplug the wrong equipment
Causes of Loss
Equipment Malfunction

- Compressor issues
- Freezer malfunction
- Circuit breakers
Causes of Loss

Fire

Including ignitable liquids and gases
Causes of Loss
Natural Catastrophe

Earthquake, Flood, Wind, Tornado
Causes of Loss
Cyber Attack

Property Damage and Business Interruption is exposed.
Total or partial loss to a research lab or greenhouse...or more
Damage to microscopes, computers, freezers, DNA sequences and databases specifically purchased or developed for a research project.
Generated materials that are the result of research activities and cannot be purchased
Is Your Organization Exposed?
Indirect Areas of Impact

Revenue/financial implications
Loss of Future grants
Effect on growth potential
Indirect Areas of Impact

Reputational risk

- Faculty and Graduate Degree Programs
- Attracting researchers, doctors, students, faculty
- Effect on tenure and retention
Part Two – The Takeaways

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Facilities

- Unauthorized access and fire alarm remotely monitored 24/7
- Power interruption, low temperature sensor alarms remotely monitored 24/7
- Sprinkler system
- Backup power – generator
- Adequate – heating, ventilation and air conditioning
- Sufficient lighting
- Fire prevention – fire extinguishers
- Proper storage of flammable liquids
- Access – Create permitted access/users guidelines
- Proper housekeeping to prevent accumulation of combustibles and prevent slips and falls
- Develop and implement Emergency Response Plan (including natural catastrophes – location specific)
Maintenance and Testing

- Daily visual inspection of work area and equipment
- Daily and continuous monitoring of all fixed temperature storage units and work environments
- Weekly testing of laboratory equipment
- Bi-weekly testing of backup power
- Preventative maintenance plan
Loss Control Checklist for Research

Inventory

- Identifiers – (evolution, storage and movement of specimen)
- Specimen labels – barcoding = ideal
- Comprehensive electronic data inventory and tracking system. Keep updated.
Redundancy

- Have a CONTINGENCY plan
- Designate backup off-site storage capacity (including freezers)
- Electronic records should be backed up daily
- Collaborate with colleagues at different institutions
- Store unique materials associated with a particular grant in multiple locations
Records Management

- Have a well documented business plan
- Document costs (labor, materials, supplies, equipment, facilities, and monitoring equipment)
- Maintain grant proposal and expense logs
Insurance

- Property Damage Coverage 
  *Valuation*
- Accidental Interruption of Services
- Research Animals Coverage
- Time Element Coverage 
  *Research and Development*
How to value your research

- Cost of materials (including animals) involved in research
- Funding source (grant proposal)
- Overhead charges – IT and administrative charges.
- Equipment costs – if new equipment was specifically purchased for this research project.
- Labor expended – breakdown by job type – researcher, technician, administrator (Laboratory researcher/experimentation costs) and percentage of time each person works on specific research project.
Questions

What materials are exposed to loss?

Where are they?

What are your expectations if something happens?

Does it need to be replaced?

If so, can it be replaced?

How do you plan to mitigate loss?
Conclusion

- Support innovation while managing risk
- Build a “partnership in risk” between risk management and research
- Assign ownership / accountability
- Tangible tools:
  - Risk Assessment Chart
  - Loss Control Checklist
  - Protecting Research Freezer and Refrigerators
Thank You!
Contact us if you have further questions.

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