# Safety Review and Approval Process for Research Proposals

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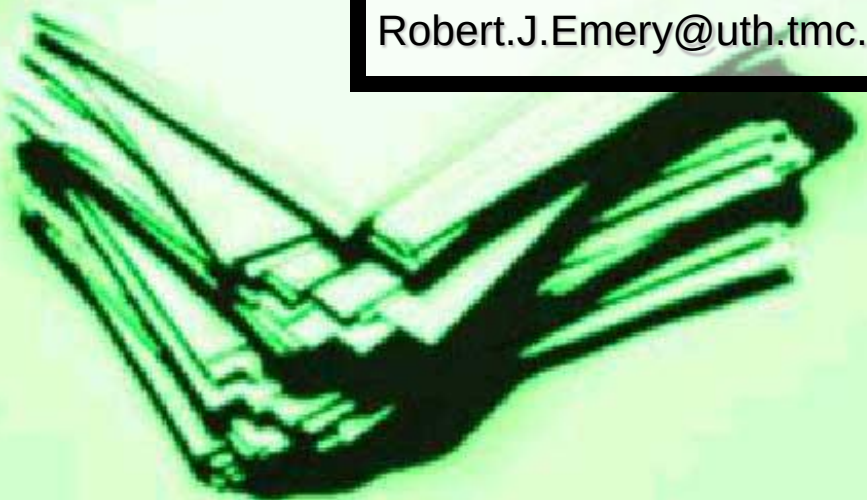

# Objectives

- Provide an brief overview of the UTHealth safety committee structure in place to oversee the use of hazardous materials
- Outline what hazardous materials require safety committee review and approval
- Describe how the process for protocol review and approval works
- Identify common pitfalls and how to avoid them
- Review some of your safety related responsibilities

# Main Possible Hazard Classes in Research Activities

- Biological agents
  - Recombinant DNA
  - Potentially infectious agents
  - Human tissues or cell lines
- Chemicals
  - Explosives, pyrophorics, toxins, highly toxic agents
  - Controlled substances
- Radiation
  - Radioactive materials
  - Radiation producing devices

# UTHealth Safety Committees

- Committee structure mimics hazard classes
  - Radiation Safety (meets 12/yr)
  - Biological Safety (meets 12/yr)
  - Chemical Safety (meets 6/yr)
  - Safety Council (meets 6/yr)
    - broad overarching committee, includes facility related safety as well as research
- Membership consists primarily of faculty, with support provided by EHS & other key support departments

# Main Safety Committee Concerns

- Have hazards been recongized?
- How will it be handled?
- Are the people aware of the hazard (trained) and afforded protection (protective equipment, vaccines, etc)?
- Emergency response?
- What about waste products?
- Documented?

# Application Process

- The key questions on the review and approval form: Does the research involve the use of
  - Radiation?
  - Potentially infectious biological agents or recombinant DNA?
  - Hazardous chemicals as defined by the UTHealth Chemical Safety Committee?

# If Yes….

- Access appropriate forms on EHS or Research Administration website
- If assistance is needed at any point in the process, contact EHS
- Submit completed forms to EHS for review and inclusion on safety committee agenda
- EHS conducts preliminary review and is able to provide provisional approvals for some applications
- No firm deadline for submission, but typically agendas set 1 week prior to meeting

# Institutional Biological Safety Committee (IBC)

- Biological Agents
  - Recombinant and Synthetic DNA (NIH rDNA guidelines)
  - Infectious agents (bacteria, viruses, prions)
  - Potentially infectious materials (human cell lines and tissues)
  - Select Agents

# Chemical Safety Committee

- Hazardous Chemicals (physical hazards and toxic chemicals)
- Listed
  - Explosives, Pyrophorics, Carcinogens, Antineoplastics
- Characteristic
  - Toxicity ($LD_{50}$ <50mg/kg oral rat)
  - Nano sized particles (1-100 nm)
- Conditionally exempt common chemicals

# Radiation Safety Committee

- Radiation producing device (e.g. x-ray machine or laser)
  - Unit must be registered with state, operators trained, protected
- Radioactive materials (e.g. radioisotope tracers, irradiator)
  - Must be licensed (actually sublicensed), workers trained, protected

# EHS Approach

- Service attitude
- Help you meet requirements and maintain a safe work environment
- Provide initial review to identify common committee concerns and address them prior to the protocol going to committee

# Common Pitfalls

- Need for approvals last minute
- Documented worker safety training attendance as required (lab safety, annual bloodborne pathogens, radiation safety, etc.)
- Inventories
- Review of previous surveillance results – ex. materials stacked too high in lab
- Despite these difficulties – EHS will work with you to provide a safe work environment and obtain approval for your research.

# Expectations of a PI and their Lab

- Be a role model and maintain a safe work environment
- Follow all safety requirements (safety manuals, HOOP policies, etc.)
- Address any identified safety issues (EH&S performs routine surveillance)
- Attend required safety training classes
  - Basic Lab and Clinic Safety
  - Basic Radiation Safety
  - Annual Bloodborne Pathogens and Lab Safety.
- Report incidents or near misses
  - First report of injury form
  - Safety concern email link on EHS webpage
  - Facilities fix it line (500-fixt)
- Submit chemical inventory annually

# Your Responsibilities

- Maintain laboratory specific standard operating procedures
- Provide hazard specific training to your personnel
- EH&S maintains overarching general safety procedures and training
  - Safety manuals
  - Safety training – lab safety, bloodborne pathogens, etc.

# EH&S - Contact Us Anytime!

- Main Office – OCB 1.330, 500-8100
- Biological Safety – OCB 1.330, 500-4193
- Chemical Safety – CYF, 500-5832
- Radiation Safety – CYF, 500-5840
- Environmental Protection – OCB/CYF, 500-5837 waste line
- Occupational Safety & Fire Prevention – OCB1.330, 500-8100
- Risk Management & Insurance – OCB 1.330, 500-8100
- www.uthouston.edu/safety