UNIVERSITY OF TENNESSEE
BIOLOGICAL SAFETY PROGRAM

2024 Annual Report & Activity Summary

IBC Registration Review

The UT Institutional Biosafety Committee (IBC) met ten times during calendar year 2024, conducting 48 registration reviews spanning 76 review categories. These reviews included two amendments requiring full committee review, eight new projects, and 38 third-year rewrites. Registrations were received from principal investigators spanning four university research units (hereafter referred to as 'campuses'): Knoxville (UTK); Institute of Agriculture (UTIA); College of Veterinary Medicine (UTCVM); and UT Medical Center Graduate School of Medicine (UTGSM). Figure 1 illustrates the number of registration reviews by campus for the following project categories: recombinant/synthetic nucleic acids (RDNA); infectious agents (IA); human-derived materials (HDM); or biologically conjugated nanomaterials (NANO). Across all registrations the average approval time was 111 days, from receipt of registration to official approval date. Some registrations were recorded with an approval time exceeding five months due to the ongoing transition to Safety Stratus. There were 25 terminations of projects, which included experiments that concluded, faculty exiting, and one project transfer to another principal investigator.

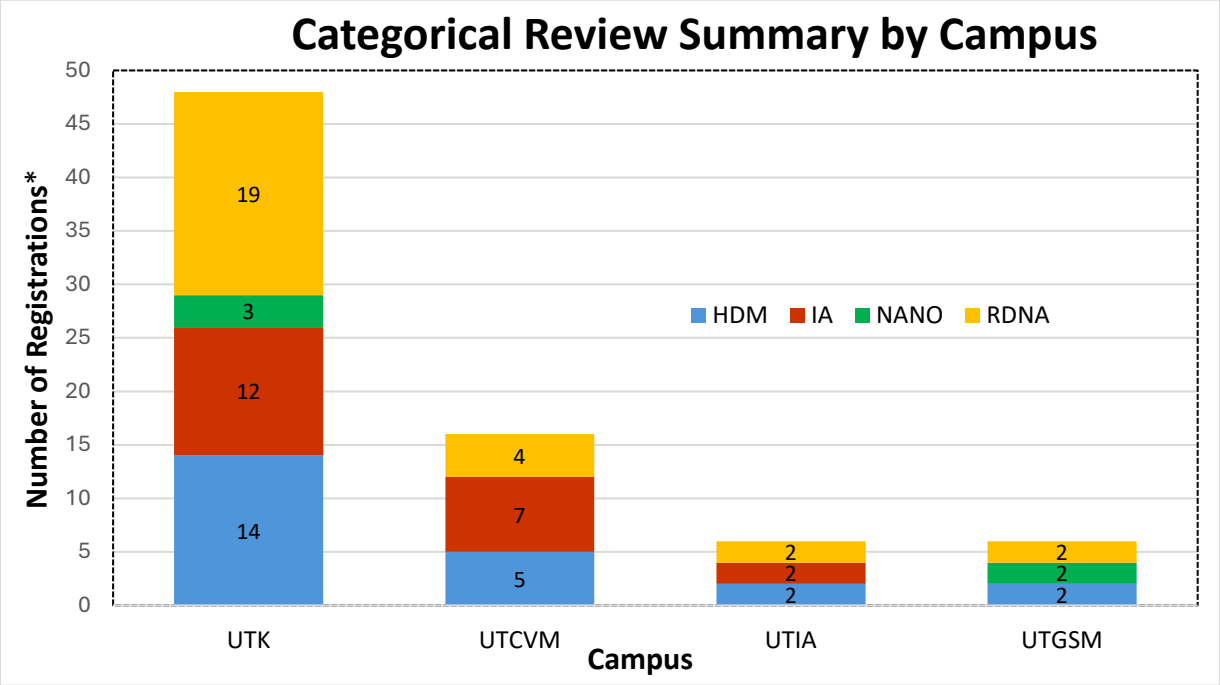

Figure 1: CY2024 IBC Categorical Reviews *Registrations may include multiple project categories.

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Biosafety Training

EHS Biosafety offered a variety of classroom-based and online format training sessions during calendar year 2024. Figure 2 displays the online, asynchronous trainings offered. In total, 753 trainings were completed online.

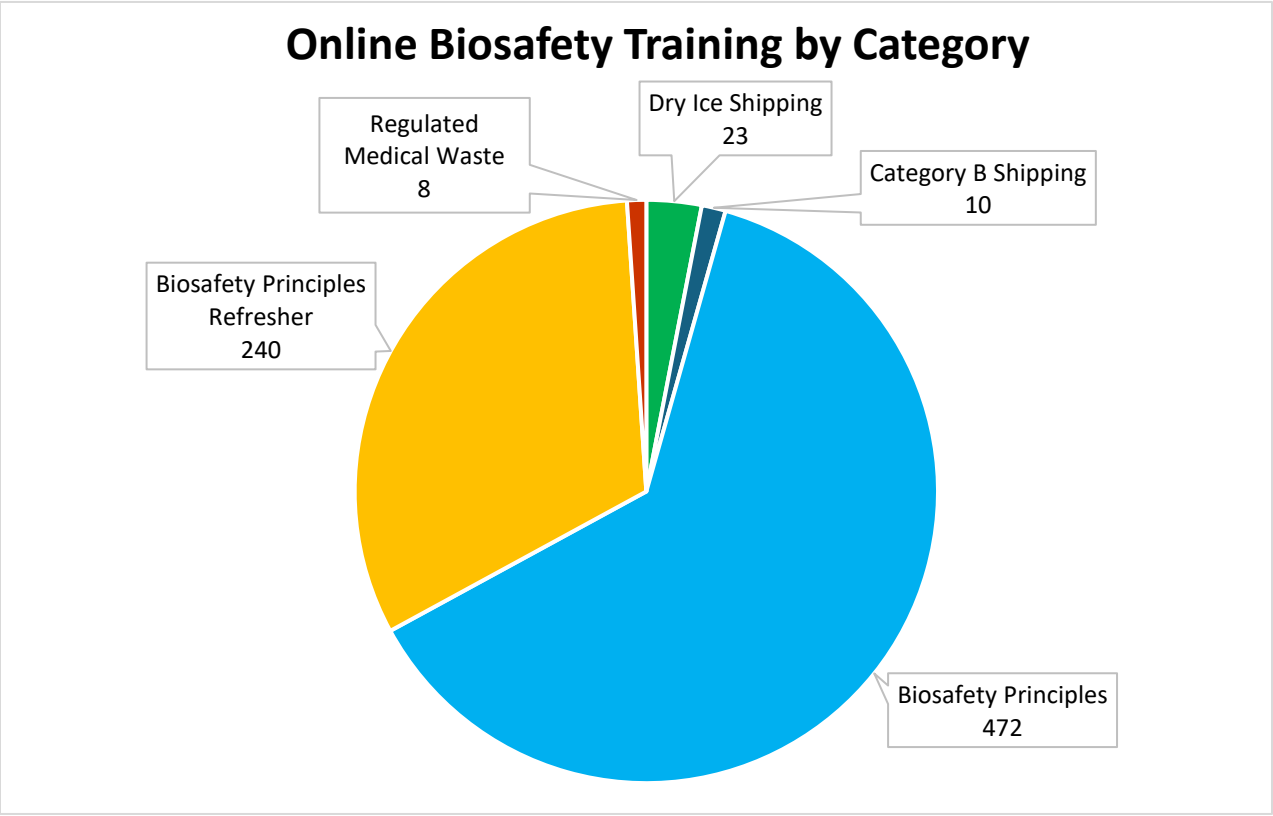

Figure 2: CY2024 Online Biological Safety & Compliance Training by Category for all campuses.

Additional trainings offered in person included:

- Biosafety Principles (BSL-1/BSL-2) and Refresher;
- (T)OSHA Bloodborne Pathogens Standard;
- Biosafety and biocontainment for animal studies;
- Departmental orientations

Biosafety Services

Additional safety/compliance services provided by the Biosafety Office are shown in Figure 3. Major efforts included:

- Administratively reviewed IBC registration amendments, annual updates, and exclusively HDM 3rd-year rewrites (n=83);
- Conducted annual lab inspections of BSL-1 and BSL-2 labs (n=107);
- Reviewed Institutional Animal Care & Use Committee (IACUC) protocols (n=52) and completion of biohazard assessments for those involving biological hazards and sharps usage;
- Coordinated of quarterly autoclave validations to ensure treatment/inactivation of bagged biohazardous waste is in accordance with Tennessee Department of Environment & Conservation requirements (n=20);
- Fulfilled requests for laboratory door placards (n=42);

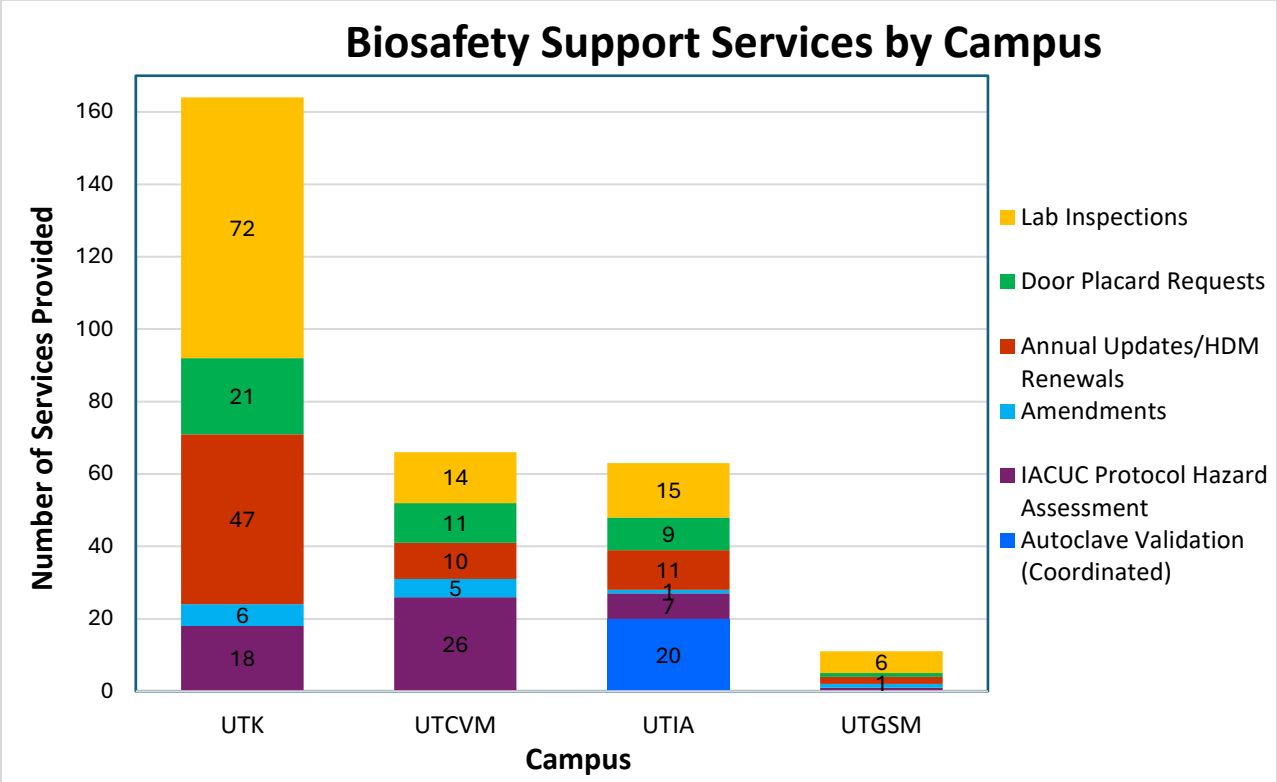

Figure 3: CY2024 Additional Biological Safety/Compliance Services by Campus.

Other safety/compliance services provided by the Biosafety Office included:

- Reviewed and verified approvals for biosafety-related proposals submitted to Cayuse;
- Provided assistance with shipping biological materials;
- Lab commissioning and decommissioning;
- Reviewed and verified/approved material transfer agreements involving biological materials (n=74).

EHS Lab Safety Services (LSS) performs laboratory inspections on a variety of spaces, including teaching and research laboratories and maker spaces. Many of these inspections include a biosafety component. In total, LSS performed 270 inspections in calendar year 2024. The number of inspections by department is shown in Figure 4. Inspections in the Art Department were performed by EHS Industrial Worker Safety in 2024.

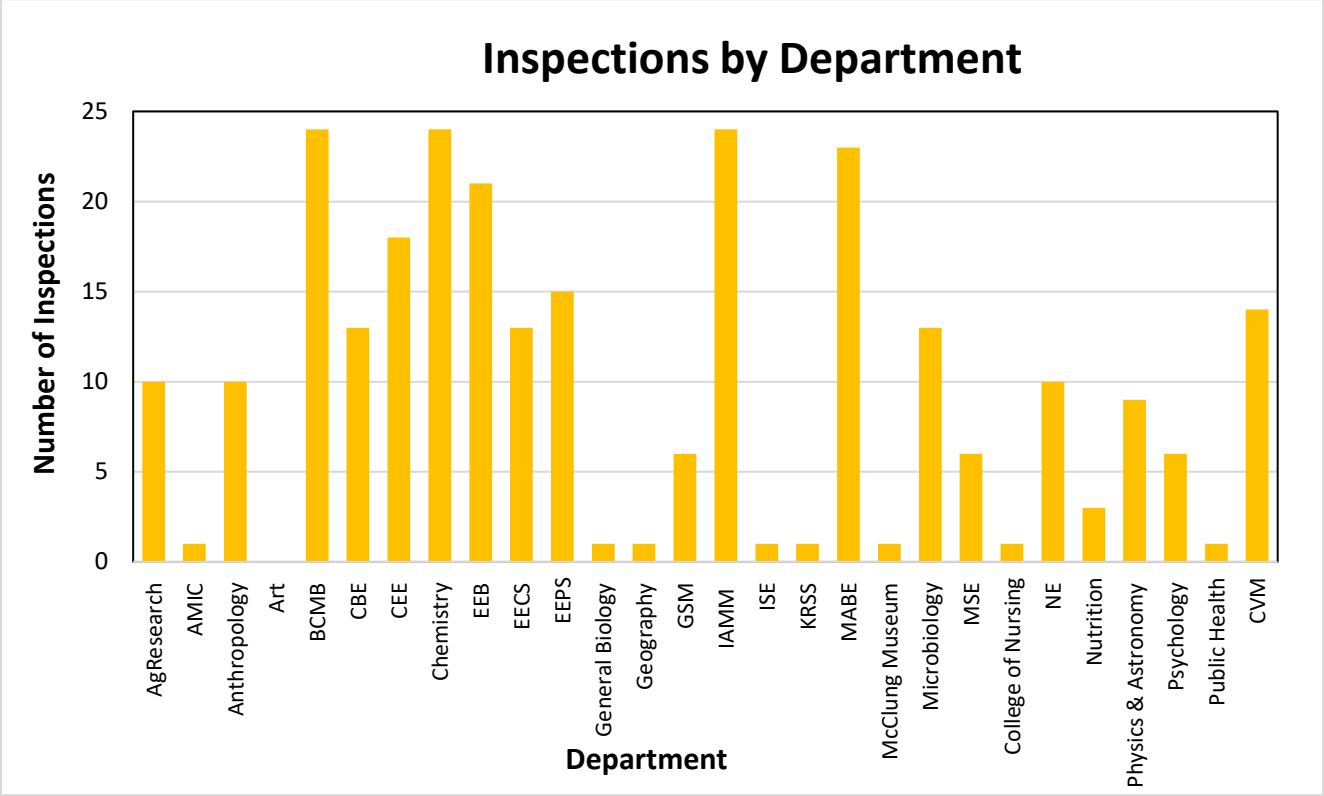

Figure 4: CY2024 LSS Safety Audits Conducted by Department

Figures 5 and 6 display information regarding safety findings and their resolutions. In 2024, there were 470 total findings with a 97% resolution rate.

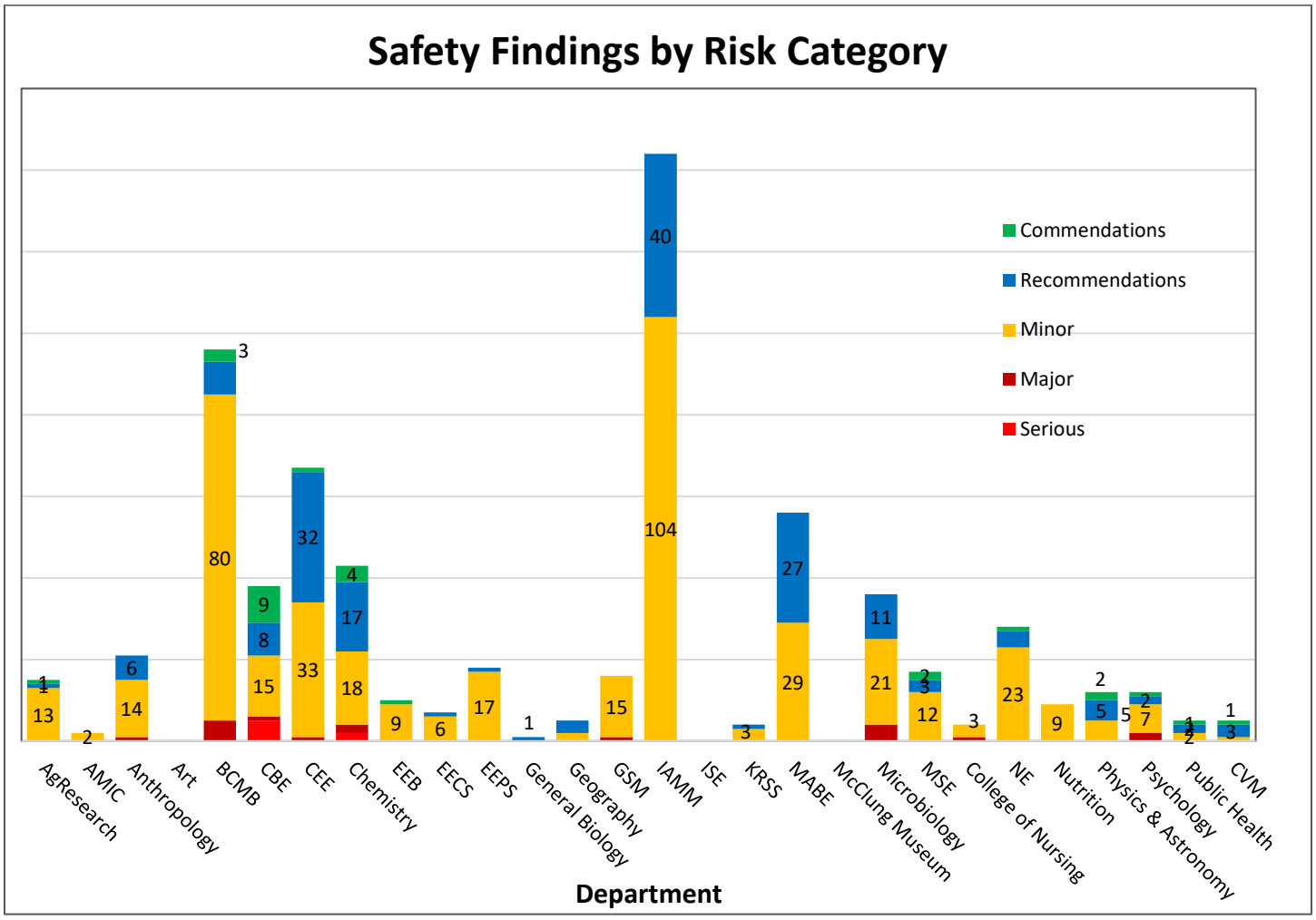

Figure 5: CY2024 Number of Safety Findings during Safety Audits

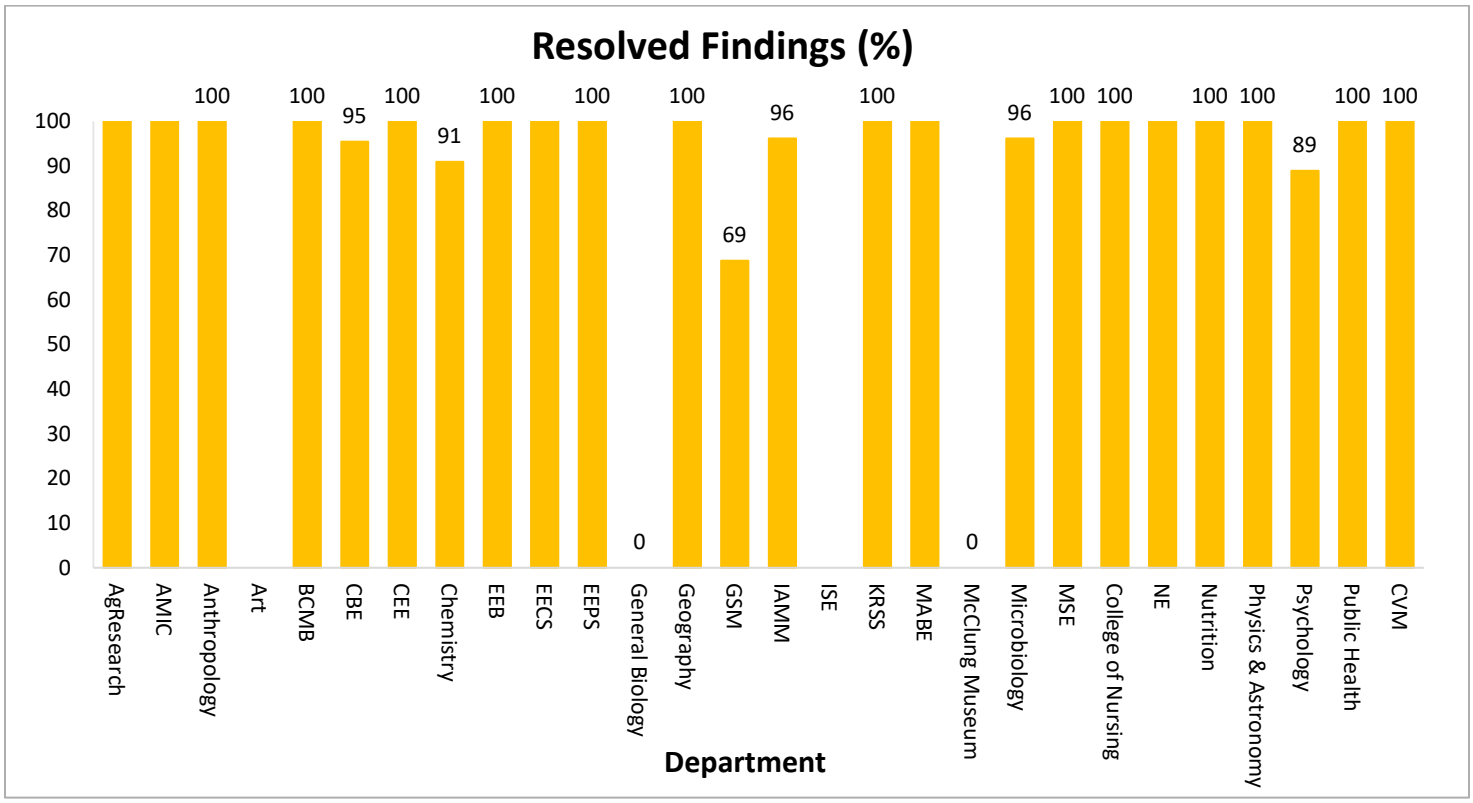

Figure 6: CY2024 Percentage of Resolved Findings

Figure 6 represents findings that were resolved within calendar year 2024 from the inspection that took place in 2024. ISE and McClung Museum did not have any safety findings and therefore do not have resolved findings to present. At GSM, unresolved findings were due to infrastructure and facility issues that cannot be resolved at this time.

Reported Incidents, Accidents, Exposures, & Releases

April 30, 2024, non-employee: Splash to the eye from material originating from a MRSA-infected mouse.

Corrective actions: Use of goggles without primary containment and eventual purchase and use of contained, automated process.

CY2024 Programmatic Highlights

- Professional Development & Training:
  - Attended the following collectively or individually:
    - BSAA webinar "A Detailed Analysis of Section III, Experiments Covered by the NIH Guidelines"

        - CDC Symposium
        - SEBSA Symposium – Carter and Hamilton provided presentations
        - ABSA webinar "APHIS 101: Arthropod and Plant Research Permits"
        - ABSA webinar "Export Control for the Biosafety Professional"
    - Courses taken:
        - Year-long ABSA Biosafety Course
        - 16-hour CDC Biosafety Course
        - 8-hour ABSA Plant and Arthropod Biosafety Course
- New roles:
    - In Q4 of CY2024, the role of Laboratory Safety Compliance Manager was filled by Emily Deem. This role aims to streamline the management of the IBC and administrative support of other EHS committees.
    - Linda Hamilton fulfilled the role of Interim Program Leader and BSO starting in Q3.
- CY2024 was the first full calendar year of the transition to the new web-based compliance management system Safety Stratus. The training of system use and the transition will continue in CY2025.
- Streamlined the pre-review and meeting management process for IBC registrations and IBC member interactions.

Program Objectives (CY2025)

- Identify 3 biosafety program elements that will improve the biosafety program through creation, improvement, and/or refinement.
- Update and organize written programs
- Continue professional development of biosafety staff
- Assess and improve IBC structure and function through 1:1 member feedback sessions