

Does Your Biosecurity Plan Have Legs to Stand On? – Tailoring Threat and Risk Assessments for Optimal Facility Operations

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Objectives:

- Understand the critical role of a tailored Threat and Risk Assessment (TRA) in aligning security systems with a facility's unique operations and biosecurity needs.
- Define and safeguard essential assets by identifying specific threats and vulnerabilities within the context of biosafety and biosecurity.
- Integrate risk tolerance levels with stakeholder insights to optimize security measures while preserving operational efficiency.
- Develop actionable, scalable security strategies that evolve alongside your institution's changing priorities, technologies, and threat landscape.
- Explore how the TRA serves as the operational backbone of a robust and defensible Biosecurity Plan.

Whether you are responsible for a biocontainment laboratory, research institution, or specialized facility managing sensitive biological materials, your approach to security cannot rely on generalized solutions. A TRA is not just a regulatory requirement, it is the foundation of an effective Biosecurity Plan that aligns protection strategies with the unique operational, scientific, and cultural realities of your institution. This session provides a structured, scalable framework for developing a TRA that informs, and is informed by your overarching biosecurity objectives. By systematically defining critical assets, evaluating threats, and mapping vulnerabilities to mitigation strategies, participants will learn how a well-crafted TRA becomes both a strategic planning tool and a practical guide for resource allocation, policy development, and facility design.

Participants will gain insights into creating a TRA that not only meets regulatory and operational demands but also harmonizes with the institution's broader risk tolerance. The session emphasizes the importance of stakeholder collaboration from laboratory staff and operations teams to executive leadership in establishing a security posture that is both robust and adaptable. Discussion will also explore strategies to ensure the TRA remains dynamic, continuously evolving with emerging threats (e.g., dual-use technologies, cyber-biosecurity risks) and internal changes (e.g., new research programs or facility expansions).

Key Topics Covered:

- **TRA and Biosecurity Plan Alignment:** How TRAs inform biosecurity strategy, drive policy, and underpin risk-based decision-making.
- **Risk Tolerance Calibration:** Balancing protection measures with institutional capacity, operational continuity, and acceptable levels of risk.
- **Asset Definition and Threat Identification:** Establishing what needs to be protected, from personnel and pathogens to intellectual property and public trust.
- **Stakeholder Engagement:** Building institutional buy-in by engaging operational teams, leadership and external regulators in a shared security dialogue.
- **Continuous Improvement:** Establishing mechanisms for routine TRA review, validation, and integration into emergency preparedness and continuity planning.
- **Navigating Pressures:** Managing internal constraints and external mandates including regulatory and political considerations to defend your biosecurity posture.

By the end of this session, attendees will understand how to leverage the TRA as a living, strategic tool that strengthens their Biosecurity Plan, supports regulatory compliance, and protects institutional credibility and public safety.