

AGENDA ITEM BRIEFING

Submitted by: Joe Elabd, Ph.D., Vice Chancellor for Research
The Texas A&M University System

Subject: Establishment of the Research and Innovation Security and Competitiveness
Institute

Proposed Board Action:

Establish the Research and Innovation Security and Competitiveness Institute (RISC Institute) within The Texas A&M University System (A&M System).

Background Information:

Academia is a magnet for students and researchers worldwide to join forces in solving the nation's most pressing problems and promoting scientific advancement. Unfortunately, countries that do not follow our established open and ethical research collaboration values threaten our economic and scientific competitiveness. These countries are illicitly appropriating intellectual capital, sensitive data and technical expertise at an unprecedented rate. Complicating the issue, federal laws and regulations designed to protect intellectual property or prevent the unlawful transfer of controlled or sensitive information often fail to translate into an academic context. The risks associated with these intelligence and technical acquisitions range from diminishing our economic and scientific leadership to sabotaging critical industrial, commercial and safety operations.

Public and private-sector institutions must employ proactive and resilient research security programs that identify deficiencies and integrate process, policy, training, and technology solutions into their operations. Unfortunately, many institutions cannot detect, deter or neutralize security risks. The proposed RISC Institute will serve as the benchmark for creating and implementing the highest standards in research security. This institute will lead the way in mitigating risks to academic, civilian and government research enterprises while protecting the characteristics that make the United States (U.S.) higher education system the most productive and prolific worldwide research generator.

The mission of the RISC Institute is to serve as the leading resource for securing the research enterprise. The RISC Institute is dedicated to protecting the strength of our academic and industrial research communities while promoting forward-thinking and innovative approaches to research security.

The RISC Institute will immediately leverage existing research security program leadership, investigative knowledge, external partner capabilities, and compliance tools to focus on:

1. **Education and Training** – ensure A&M System students continue to have relevant skills and are ready to make a positive impact upon graduation; train a new generation of research

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security professionals from across the U.S. and around the world, and provide continuing education for those already working in research security.

1. **Service** – assist institutions currently lacking the capability and resources to create effective due-diligence programs and provide a continual source of expertise to the research security workforce.
2. **Outreach** – build deeper affiliations to ensure relevancy, enhance research outcomes and broaden the impact of the A&M System to strengthen our reputation as a leader in research security.
3. **Research** – review current processes and analyze changing risk factors to reduce the likelihood and impact of information theft and misappropriation.

A&M System Funding or Other Financial Implications:

The A&M System will fund the initial start-up of the RISC Institute, including, but not limited to, salaries, equipment and general operations. Opportunities for additional support will come from potential state and federal grants, funds from academic and government agency partnerships, offered courses and training, and philanthropic gifts.

Strategic Plan Imperative(s) this Item Advances:

The RISC Institute will advance several A&M System strategic imperatives by developing educational experiences and service opportunities for our students' post-graduation success and safeguarding our robust, cross-institution and targeted research portfolio (imperatives 3 and 4). In addition, the RISC Institute will advance imperatives 5 and 7 by contributing to and protecting the strength of our state and national economies by pursuing pioneering avenues to address national and global challenges.

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THE TEXAS A&M UNIVERSITY SYSTEM

Office of the Vice Chancellor for Research

August 17, 2023

Members, Board of Regents
The Texas A&M University System

Subject: Establishment of the Research and Innovation Security and Competitiveness Institute

I recommend the adoption of the following minute order:

“The Research and Innovation Security and Competitiveness Institute is hereby established as an organizational unit of The Texas A&M University System.”

Respectfully submitted,

[ORIGINAL SIGNED BY]

Joe Elabd, Ph.D.
Vice Chancellor for Research

Approval Recommended:

[ORIGINAL SIGNED BY]

John Sharp
Chancellor

[ORIGINAL SIGNED BY]

Billy Hamilton
Deputy Chancellor and
Chief Financial Officer

[ORIGINAL SIGNED BY]

James R. Hallmark, Ph.D.
Vice Chancellor for Academic Affairs

Approved for Legal Sufficiency:

[ORIGINAL SIGNED BY]

Ray Bonilla
General Counsel

THE TEXAS A&M UNIVERSITY SYSTEM
Research and Innovation Security and Competitiveness Institute

EXECUTIVE SUMMARY

1. The Rationale for the Creation of the RISC Institute

The Texas A&M University System (A&M System) proposes the establishment of the Research and Innovation Security and Competitiveness Institute (RISC Institute) as an organizational unit of the A&M System to develop partnerships with other higher education institutions and organizations outside the academic community. It will diversify the scope of innovative solutions to the complex and ever-changing challenge of securing our research and maintaining our creative lead. The RISC Institute will enhance A&M System members' response to new state and federal research security requirements and initiatives and serve as a collaborative hub for academic, industry and government research security expertise.

According to a 2022 report released by the National Academies of Sciences, Engineering, and Medicine, titled *Protecting U.S. Technological Advantage*, "The historical approach to risk and protection of technologies taken by the U.S. has been predicated on an assumption of economic and technological dominance, largely by focusing those approaches on restricting access to or use of the outputs of technology development. The increasing globalization of science and technology, new ways of developing technology applications and the advent of powerful technology platforms have made many current methods of protecting technologies obsolete, and in many instances counterproductive."

During a March 2, 2023, U.S. House Committee on Science, Space, and Technology hearing, Klion Kitchen, Senior Fellow at the American Enterprise Institute, reminded committee members that the U.S. must seriously confront technological theft because "... emerging technologies will decisively shape tomorrow's societies, economies, and battlefields...."

Already the acknowledged leader in securing the academic research enterprise, the A&M System is committed to innovating and driving research security forward by providing a forum for "researching research security." Continually prioritizing, refocusing, and expanding the capacity of academic and private sector security of intellectual capital is vital to the safety and economic well-being of our state and nation. The RISC Institute will offer valuable insight to government, academic and corporate stakeholders by recognizing and analyzing the impediments of current multi-sector assessment and aid in developing stream-lined and consistent policy for secure multiorganizational and multinational collaboration.

2. General Description of the RISC Institute and Its Mission and Goals

The RISC Institute will be the leading national and international resource for securing the research enterprise. It will be dedicated to protecting the strengths of our academic and industrial research communities while promoting forward-thinking, innovative and secure approaches to international collaboration.

Specifically, the RISC Institute's mission objectives are:

- Develop awareness, training and educational programs necessary to build a workforce with technical expertise and experience to integrate security into every aspect of business and academic culture.
- Serve the nation as the technical resource for establishing, managing and assessing research security programs and policies fundamental to maintaining national security, innovation and economic competitiveness.
- Lead the national and international community in outreach necessary for securing the academic and industrial research enterprise.
- Develop a consortium of like-minded public/private organizations engaged in securing the research enterprise to ensure the timely exchange of information.
- Analyze and assess the research security implications of critical and emerging technologies.

3. Potential Faculty, System and Other Institution Collaborations

The RISC Institute will facilitate the engagement of A&M System faculty and professional staff with experts from the U.S. national security agencies, accredited research/science and academic organizations, other esteemed universities, national laboratories, industry, and government leaders to establish best practices, develop education and training platforms and hold conferences and symposia focused on securing the research enterprise.

Current Collaborators:

A&M System Faculty:

Kevin Gamache, Ph.D., Assoc. Vice Chancellor and Chief Research Security Officer

Ivett Leyva, Ph.D., Professor, Aerospace Engineering

William Norris, Ph.D., Assoc. Professor, International Affairs

James Olson, J.D., Professor, International Affairs

Gerald Parker, DVM, Ph.D., Assoc. Dean of Global One Health

Lori Taylor, Ph.D., Department Head and Professor, Public Service and Administration

Kay Wijekumar, Ph.D., Professor, Teaching, Learning and Culture

Industry:

Optiv, Inc.

MITRE Corporation

Government:

National Science Foundation

U.S. Department of State

U.S. Department of Justice/Federal Bureau of Investigation

4. Potential Activities

The RISC Institute will focus on four overlapping principles:

- A. Education And Training:** The RISC Institute will educate and train a new generation of research security professionals and provide continuing education in research security operations, policy, technology protection and program management. The RISC Institute will ensure A&M System students continue to have relevant skills and are ready to make a positive impact upon graduation, train a new generation of research security professionals from across the U.S. and around the world, and provide continuing education for those already working in research security.

In collaboration with the Texas A&M University (Texas A&M) Bush School of Government and Public Service (Bush School), the RISC Institute will create a Graduate Certificate Program in Research Security during Year 1. This certificate program will be offered online as part of the Bush School Distance Education Program.

A Research Security Track will also be developed and offered as part of the Bush School's Executive Master's in Public Service and Administration. This program is open to mid-career professionals, the demographic most needed to lead research security programs in academia and industry. The Bush School Research Security Track will be the first of its kind and will position Texas A&M to lead in providing a new cadre of research security professionals.

Given research security's growing sophistication and technical nature, finding individuals well-qualified to assume Chief Research Security Officer positions at large research universities is problematic. The ideal candidate would have significant experience in government and academia and a solid grounding in conducting research that is best achieved in a Ph.D. program. The RISC Institute will be perfectly aligned to produce these highly specialized academy members when fully operational.

There is also a significant need to develop awareness and training materials specific to the research security arena. The RISC Institute will establish training, such as the mechanics of conducting an effective due diligence program in academia, and research security for executive leaders.

The A&M System Research Security Office (RSO) created a five-module online Research Security Management Certificate Program (RSMCP) in 2021. This certificate program has been well-received and will be updated and rebranded under the RISC Institute. The RSCMP introduces research security to researchers, staff and government officials. It is the only program of its kind currently available.

- B. Service:** The A&M System RSO has earned a national and international reputation for excellence in research security, primarily through national-level service programs that have been in place since 2017. These programs will be moved under the portfolio of the RISC Institute.

The RISC Institute will assist institutions of higher learning and industry members who currently lack resources to create effective, due-diligence programs and provide a source

of expertise to the research security workforce. Some of the notable programs that will be coordinated through the RISC Institute include:

Academic Security and Counter Exploitation Program

The A&M System RSO established the Academic Security and Counter Exploitation (ASCE) Program in 2017 in consultation with federal officials to leverage the expertise of universities that have demonstrated excellence in research security programs to help address the threat posed by foreign adversaries to U.S. academic institutions.

ASCE aims to further the protection of intellectual property, controlled information, key personnel and critical technologies, and mitigate and manage risks from undue foreign influence at U.S. academic institutions researching economic or national security.

To advance its mission, ASCE:

- Provides a focal point within academia for discussions concerning U.S. universities researching economic and national security.
- Works collaboratively with Federal law enforcement, research and development funding agencies and other government organizations to develop new guidance for U.S. universities to counter malign foreign influence.
- Serves as an advocate for the academic community, providing advice and feedback to U.S. agencies and policymakers regarding the scope and importance of open research, free inquiry and international cooperation in the university context to help ensure that federal guidance, policies and requirements affecting academic science are fully informed and optimally tailored to avoid unintended negative consequences.
- Supports U.S. agencies and academic institutions' efforts to develop domestic talent in relevant scientific and engineering fields.
- Serves as a conduit and resource within the academic community for sharing and disseminating information and best practices to help institutions of higher learning educate faculty and staff on the threat and overall risks to the U.S. research enterprise.
- Partners with international universities to share best practices and advance research security initiatives globally.

University Research Security Professionals Association

What began with ASCE has also matured into the University Research Security Professionals Association (URSPA). Still, in its infancy, URSPA has an Executive Committee comprised of research security professionals from ten top U.S. universities. The RISC Institute will be URSPA's administrative home and facilitate the association's professional certification program.

Research Security Professional Certification

The field of research security is relatively new. Requirements from a federal policy such as the *National Security Presidential Memorandum (NSPM) 33* and the *Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act of 2022*, established research security requirements for Tier 1 Research Universities. There is a need for the

professionalization of research security to include curriculum development, the definition of experience requirements, education, training, and testing. The RISC Institute will be ideally positioned to lead the research security professionalization effort.

Critical and Emerging Technology Protection Program (CETPP)

As The Texas A&M University System increases its portfolio of centers and institutes with a focus on critical and emerging technologies, it will be increasingly important to ensure that the security of that technology is considered from program/device inception. The RISC Institute will provide the expertise and mission to work with A&M System research organizations to protect their developing technology from those who want to gain illicit access. This service will also be available outside the A&M System to other universities and industries.

Open-Source Media Summary

The A&M System RSO has published a weekly open-source media summary (OSMS) electronic newsletter since 2017. This provides universities with overviews of threat information specifically focused on academia. The OSMS currently reaches over 4000 university, government and industry personnel.

Research Security and Integrity Information Sharing Analysis Organization (RSI-ISAO)

The National Science Foundation (NSF) is currently seeking to establish an independent RSI-ISAO to empower the U.S. research community, non-profit research institutions and small and medium-sized for-profit organizations to address foreign government interference, support security-informed decision-making and serve as a conduit that connects research community stakeholders and with U.S. Government agencies via NSF.

This will be a five-year, \$10 million per year effort. The A&M System already has a strong portfolio in this area, making it an ideal candidate. The proposal is due October 31, 2023, and the A&M System is currently preparing our response. The RSI-ISAO would be an anchor function for the RISC Institute.

- C. Outreach:** The RISC Institute will continue to build deeper relationships with federal agencies such as the Federal Bureau of Investigation (FBI), the Department of State and the Department of Defense. FBI Director Christopher Wray has said that the A&M System's working relationship with the FBI is the "Gold Standard" for universities across the U.S. Deputy Assistant Secretary of State, Gonzalo Suarez, said, "The Texas A&M University System has done more to advance research security than any other university in the country." The RISC Institute will adequately position the A&M System to continue to be the Gold Standard for research security.

The opportunity exists for using the A&M System research security program model for other Texas universities. Additionally, many programs could be established through the Texas Workforce Commission and the Texas Veteran's Commission to train Texas veterans to perform critical research security-related roles within Texas universities and businesses.

D. Research: The term "research security" has become more common in recent years but is not always well-understood in the research community. There is no clear distinction between research security and integrity in the U.S. and internationally. The NSF needs to understand better the differences between these two concepts and how they overlap and depend on the scientific discipline. This understanding will help NSF, its federal partners and the research community develop controls to protect research from undue foreign influence without adversely impacting international collaboration. Sufficient data on research security issues' type and frequency does not exist. As a result, federal agencies rely on individual cases or potentially biased measures in decision-making. The RISC Institute will make research security research one of its foundational efforts to help solve this problem.

5. Impact on Education and Training of Students

The research security enterprise within academic institutions, private sector industry and government agencies desperately needs a talented workforce trained to identify and strengthen program vulnerabilities. In addition to the research security and integrity curricula listed previously, access to the latest security risks and the opportunity for hands-on experience through holistic and specialized training, capstone courses and workshops with multi-sector security experts will ensure students across multiple disciplines are taught to integrate security into a wide range of professional vocations.

6. Resource Requirements

The RISC Institute will require funds for salaries for a director and a small, experienced support staff. Resources to purchase some computer and workstation equipment will be needed; however, at this time, computer data system management and storage space will be handled by the specialized Information Technology staff in the A&M System Research Security Office.

Initially, the RISC Institute will be housed in the Donald L. Houston Building on the Texas A&M campus near the Research Security Office and in a secure environment.

7. Sources and Future Expectations of Financial Support

The RISC Institute anticipates federal funds and grants as we facilitate programs for and with government agencies such as the NSF and the U.S. Department of State Office of Science and Technology.

External Advisory Council membership dues and revenue from conference and training course fees should ensure the RISC Institute is financially independent after three years. Additionally, philanthropic donations from former students and partnering corporate subject matter experts are possible.

8. Governance and Advisory Structure

The RISC Institute will be structured under A&M System Policy *11.02, Creation of Centers and Institutes*. The RISC Institute will be led by a director reporting to the Vice Chancellor for Research.

Immediate staffing required:

Director

Associate Director - Security/Counterintelligence

Program Director

Manager – Operations

Executive Assistant

9. Mechanisms for Periodic Review

The RISC Institute director will provide an annual report to the Vice Chancellor for Research. Per A&M System Policy *11.02, Creation of Centers and Institutes*, an in-depth review will be performed every five years with performance guidelines established by the Vice Chancellor for Research and the Chancellor.