University of Manitoba

2023-2024 Research Support Fund
Research Security

Public Acknowledgement, Objectives & Outcomes

Office of the VP (Research & International)

The University of Manitoba received **$643,242** in Federal RSF-IPG Research Security support.

The following provides an overview of how the funds were spent under each of the five expenditure categories (including the affiliated institutions):

Management & Administration	Information Resources
$166,730	$476,512

Management & Administration

Research Security Office

The University of Manitoba established the Research Security Office to support the National Security Guidelines for Research Partnerships by assisting and coordinating research security activities and training across the institution.

The Research Security Office continues to maintain:

- Their staff complement of an Acting-Director, and a Research Security Assistant
    - Provide one-on-one risk assessment support for all grants and contracts applications
    - Conduct security, risk, and sanction due diligence for all other research partnerships and research contracts with industry members
    - Professional Development through attending to Research Security Conferences and training courses
- Two external programs for compliance to conduct the necessary security risk and sanctions due diligence required by NSERC, NIH and all other US federal funders:
    - Computer Services Inc. (CSI) WatchDog Elite for screening against 16 US, Canadian, and International (EU) watch and sanctioned lists.
    - Kharon Clearview an intelligence firm focused on uncovering the networks of sanctioned and other high-risk actors by translating data from 25 different languages.

The potential future operational plans consist of:

- Education and outreach to UM Community as well as post-secondary institutions across the province to builds awareness of research security and requirements.
- Launching province wide research security training
- UM host a Research Security Conference for U15
- Various information sessions, workshops and townhalls

There is a need to expand the Research Security Office.

Information Resources

Advanced Research Computing (ARC) Security

The finalization of the University of Manitoba's Grex HPC System and Infrastructure Renewal project. Grex was originally built in 2010 and provides UM researchers with access to as many as 3000 core years of computing and storage capacity. A significant portion of the computing system and supporting infrastructure is obsolete, at growing risk of failure and constrains our ability to meet growing local demand for this capability.

The modernization of the HPC facility included:

- High end computer servers and network switches
- Replacement of 3000 obsolete processor cores
- Replacement of obsolete storage network equipment
- Repair or replacement of the heavily corroded cooling system water supply
- Replacement of obsolete racks and cooling doors
- Updating the cooling loop system to easily connecting new racks
- Updating the electrical distribution with an overhead busbar system
- Adding an overhead cabling distribution system
- Commissioning an electrical and mechanical engineering assessment

While completing this modernization effort, this renewal will document the incremental infrastructure improvements required to enable future expansion of this facility to meet growing demand for research computing capacity.

2023-2024 Performance Indicators and Outcomes

Project Title	Investment	Objectives	Indicators	Target Outcomes	Outcomes
Research Security Office	$166,730	Enhanced support to identify and mitigate risks to research security (physical, cyber, partnerships, intellectual property, people	• Coordinating research security across the Institution • Acting Director and Office Assistant positions • Maintain security software licenses	Increased support through activities of larger dedicated support team	• Acting Director, & Research Security Office Assistant • Annual maintenance of the Computer Services Inc. WatchDog Elite for screening and the Kharon Clearview Security Software • Res Security Conferences & Training courses
Advanced Research Computing (ARC) Security	$476,512	Expanding cyber security infrastructure (computer processing, network connectivity, data storage and data backup) Assist researchers (faculty, students, and staff) with accessing both local and national ARC systems and support	Continued investment to increase capacity to protect researchers and their data from the risk of cyberattacks and breaches. Continued rollout of protection and response systems for servers and workstations used by researchers and multi-factor authentication.	Increase security and its user-contributed systems, providing archiving, capacity, and space & cooling for centralized, secure hosting of research-contributed systems	- Procurement of technology equipment initiated - Installation in process