

UPEI Investment Stories for 2025-2026 use of Research Support Funds

Investment Story #1 - Intellectual property and knowledge mobilization

RSF funds support the salaries of staff within UPEI's Research Partnerships and Innovation (RPI) team. One of RPI's primary roles is technology transfer, which includes identifying promising research discoveries, securing technology development funding, protecting intellectual property, and exploring commercialization opportunities.

Two examples from 2025-26 demonstrate this support. In response to the MSX crisis affecting Atlantic oysters, RPI helped assemble a multidisciplinary team and secure funding to develop an AI-based diagnostic tool. This technology aims to streamline diagnostic reviews, improve disease detection and monitoring, and enable the aquaculture industry to respond more quickly to outbreaks. RPI is now supporting the assessment and protection of the resulting intellectual property, and exploring pathways to implement the technology.

RPI also continued to advance UPEI's Volume Preserving Neural Network (VPNN) technology, a novel AI architecture designed to reduce the computational resources and energy required to train machine learning models. RPI supported the patenting of the technology, which has now resulted in an issued U.S. patent. RPI also helped secure funding to validate VPNN within today's rapidly evolving AI ecosystem and guide its further development and commercialization.

Investment Story #2 - Regulatory requirements and accreditation

RSF funds support UPEI research compliance activities. It funds both the software platform that maintains the database for compliance and the salary of the Biosafety Officer (BSO).

The UPEI BSO is a key member of the Institutional Biosafety Committee (IBC). The BSO's primary role is to oversee, develop, and support Biosafety programming at the university in accordance with best practices and governing legislation. The IBC is a university committee governed by the UPEI Biosafety Policy and reporting to the Vice-President Academic and Research (VPAR). The IBC is responsible for ensuring that all research procedures involving biohazardous material (BHM) performed by or on behalf of UPEI employees and students, including the use of BHM by UPEI employees and students at other locations, comply with all relevant UPEI Policies and regulatory standards, including the federal Human Pathogens and Toxins Act (HPTA) and Canadian Biosafety Standard (CBS). This year marked the 20th anniversary of the IBC at UPEI!

The BSO role was instrumental in the following activities this year, in support of the UPEI research enterprise. The role has historically been 80% FTE, and with continued RSF funding support, it has expanded to 100%. Key metrics related to the BSO from the 2025-2026 fiscal year included.

- 129 biosafety permits were active; 33 new approvals, 56 renewals, and 40 files were closed upon expiry or request.

- 52 laboratories with Containment Level 2 compliance through the Canadian Food Inspection Agency (CFIA) and/or the Public Health Agency of Canada (PHAC). 5 were inspected for the first time, 4 were recertified with CFIA for two years, and 2 were decommissioned in 2025-26.

- CFIA representatives visited to inspect the new Diagnostic Services Foreign Animal Disease (FAD) and Aquatic Animal Facility-B Aquatic Containment Level 2 (AAF-B AQC2) in vivo laboratories

- 5 basic biosafety training sessions were offered in person, now condensed and complemented by online completion of specified PHAC training modules. Bloodborne pathogen training was also offered once.