

Research Support Fund Distribution

The University of Calgary and its affiliated institutions are committed to building a culture of research and innovation. The RSF grant is invested in various services.

In 2021/22, UCalgary invested the RSF grant in **facilities** to support and maintain laboratories across campus. These funds help provide a vital physical space where the lights are on, the environment is safe, and the equipment is functional to ensure that research teams can rely on lab space where they can discover, create, and innovate. The RSF funding also continues to provide critical infrastructure to support UCalgary-affiliated researchers' access to Alberta Health Services (AHS) resources vital to their clinical health research projects. This is particularly true for grant-funded and unfunded studies.

Dedicating a significant portion of the grant to **research resources** ensures current and relevant material is available to support research and training at the undergraduate, graduate, and faculty levels. Maintaining a current library is at the very core of a post-secondary institution as it is a repository of knowledge and an academic foundation for the research enterprise.

This year, the portion of the RSF grant allocated to **management and administration** supported salaries and benefits from Institutional Programs and Finance (Research Accounting, Financial Reporting, Accounts Receivable, Accounts Payable, Supply Chain Management and Financial Operations). These teams operate as a central service responsible for the post-award financial administration of sponsored research and restricted funding. The teams are instrumental to research at UCalgary as they work with researchers, administration and leadership, and funding agencies to ensure compliance with agency guidelines and policies, as well as accurate and timely reporting. The RSF funding allocated to Alberta Health Services (AHS) is reinvested in various services to UCalgary faculty and staff provided by the AHS Health System Access (HSA) team. Overall, the RSF funding has enabled staff to continue supporting researchers in meeting administrative requirements, to reduce the administrative barriers of initiating research and innovation, and to carry out their important work in the most efficient manner. The RSF funding positively contributed to ongoing process improvements and increasing capacity to accommodate research activities, including support related to the implementation of Connect Care.

As well, the portion of the RSF grant allocated to **regulatory requirements and accreditation** supported Animal Care, Research Services ethics and compliance, and environment health and safety staff this year. The Institutional Research Information Services Solution (IRISS) provides researchers and their teams a convenient, secure, online process that streamlines and modernizes research certification application processes related to human ethics and animal care protocols. IRISS aims to reduce process time and will alert researchers of potential compliance issues. A key area of investment is to ensure AHS maintains its regulatory obligations to maintain patient privacy, a detailed health information disclosure log and monitoring of chain of custody for the disclosures.

In line with the strategic vision to sharpen our focus on research and scholarship, UCalgary has dedicated salary support for in-house legal counsel to ensure faculty and students protect their **intellectual property** and successfully execute contracts and agreements when working with research funding agencies, including industry.

Affiliated Institutions

- Alberta Health Services (AHS)
 - Alberta Children's Hospital
 - Alberta Children's Hospital Research Centre
 - Alberta Precision Laboratories (formerly Calgary Lab Services)
 - Foothills Hospital
 - Peter Lougheed Centre
 - Rockyview General Hospital
 - Tom Baker Cancer Centre
 - South Health Campus
- Alberta Bone and Joint Health Institute
- Alberta Civil Liberties Research Centre
- Alberta Sulphur Research Limited (ASRL)
- Arctic Institute of North America (AINA)
- Bamfield Marine Sciences Centre

- Calgary Technologies Inc.
- Canadian Energy Research Institute (CERI)
- Canadian Institute of Resources Law (CIRL)
- Canadian Research Institute for Law and the Family
- Carbon Management Canada Inc. (formerly Carmon Management Canada Research Institutes Inc. (CMCRI))
- PolicyWise
- TRIUMF
- University Technologies Inc.
- Van Horne Institute
- Vecova Centre for Disability Services and Research

Outcomes Report

Listed below are the qualitative and quantitative measurements on the impact of the Research Support Fund at the University of Calgary, supplemented by the university's internal operation budget. Funds have been invested in each eligible category.

Research Facilities

UCalgary has many research facilities that support thousands of researchers (including faculty members, students and postdoctoral fellows) and provide the infrastructure to implement hundreds of research projects each year. A list of 33 core facilities across 7 faculties is available on the [website](#). Additional facilities that support research include: [Centre for Mobility and Joint Health \(MoJo\)](#), [Advancing Canadian Water Assets \(ACWA\)](#), [Arctic Institute of North America](#), [Biogeoscience Institute](#), [International Microbiome Centre](#), [CERC \(Canada Excellence Research Chair\) lab](#), [The Life Sciences Innovation Hub](#), [The Prairie Regional Data Centre](#), [W.A. Ranches](#), and [School of Architecture, Planning and Landscape \(SAPL\) City Building Design Lab](#). These facilities are crucial in the support of leading-edge research and innovation.

Innovate Calgary continues to assist the University of Calgary in transforming the University Research Park into a new Innovation zone: University Innovation Quarter. Currently Innovate Calgary is activating the Life Sciences Innovation Hub, the Energy Transition Centre, and the Social Innovation Hub.

Research Resources

A number of initiatives have been established at UCalgary in 2021/22:

- Significant ongoing upgrade in digital research infrastructure for advanced research computing and data management.
- Significant addition to the digital research infrastructure with the deployment of CloudStack which diversifies services offering to the research community
- Continued support and deployment of Secure Research Computing platform for L3/L4 data storage processing.
- Libraries and Cultural Resources (LCR) is near completion of a project to make the full theses research record of the University of Calgary available nationally and internationally through digitizing print theses from prior to 2012 and placing them in our institutional repository which is harvested by the Libraries and Archives Canada Thesis Portal. This collection provides a valuable historical archive of the research of the University of Calgary and the impact of this young institution on the landscape of Canadian research since its inception in 1967.
- LCR began implementing a digital preservation system to ensure that our digital assets, including photos, digitized books research data and the thesis noted above are accessible for future generations. The system stores digital assets in 3 different geographic locations, checks them for degradation and migrates to current formats where necessary.
- LCR continues to be very active in Research Data Management, with the Vice Provost co-chairing the Steering Committee to create an institutional strategy, and the AUL Technology co-chairing the working committee.

Management and Administration of Institutions and Research Enterprise

- More than 300 personnel are dedicated to research support systems in finance, human resources, IT, legal, and ethics.

- UCalgary's Research Services Office, with a staff of 50+, offers services ranging from pre-award assistance to facilitation of major strategic initiatives, partnerships, and research infrastructure programs (including business case development, securing matching industrial support and developing commercialization strategies as necessary).
- Twelve faculty-embedded research facilitators across the UCalgary campus provide local support for individual researchers in securing and utilizing research funding.
- *Strategic University Proposal and Platform Opportunity Review Team (SUPPORT)*: Five committees (Chairs and Professorships, Research Infrastructure, Partnerships and Major Grants, Research Awards, and Training and Professional Development) provide content feedback to researchers and make recommendations to the Vice-President (Research) for the strategic allocation of institutional opportunities, quotas, and major infrastructure and operating funds. The SUPPORT process provides more than 100 full peer reviews of research funding applications annually, and feedback to researchers has significantly improved quality and success of our applications. Committees comprise 55 faculty members from across campus, plus associate vice-presidents (research) and representatives from service units responsible for implementation, such as Facilities Development and IT.
- The Research Management System (RMS) is the research application management platform at the University of Calgary. RMS is in full maintenance mode. Throughout the Grants and Contracts life cycle, RMS interfaces with other UCalgary systems, including IRISS (ethics) and PeopleSoft (financial, human resources), to provide a seamless process for grants and contracts management, eliminate re-keying of data and heightened transparency into the status of funding applications at any time. Release-1 was focused on a select number of single sponsors competitions, enabling functionality to manage Pre-Award/Application processes (went live on June 18, 2019). Release-2 delivered functionality to manage Post-Award/Projects (went live on December 17, 2019). Release-3 delivered functionality to manage Letter of Intent (LOI), Foreign Exchange, Reports, and Project Maintenance Roles (went live on May 7, 2020). The RMS project is a living project that continues evolving, with key features in production, and with development work continuing in important areas, such as the integration with ethics, animal care and biosafety, which was implemented in February 2021.
- AHS utilizes the partnership model to provide research support through staff dedicated to the HSA team. These services include administrative support platforms (e.g., access to AHS IT systems, extraction of data from repositories, access to operational areas, etc), efforts to accelerate timelines for study initiation, navigation to appropriate AHS resources, streamlining of approval processes to enable researchers to focus more directly on their programs of research, and engaging with clinical leaders and staff about the importance of research to improve patient care. HSA outcomes for 2021-22: 769 studies assessed (5.4 days average assessment time); 573 data approvals processed (24.5 days average approval time); 599 UCalgary affiliated research staff actively managed for IT access; 208 Clinical research studies converted for Connect Care launch; UCalgary affiliated research staff provisioned and trained for Connect Care: 130 write- access and 76 read-only access.

Regulatory Requirements and Accreditation

The Institutional Research Information Services Solution (IRISS): an online automated workflow for researchers when applying for the certifications necessary to conduct research involving humans or animals. This system supports over 21,000 researchers annually and has significantly reduced the administrative workload when applying for ethics certification, supports efficiencies for the review boards, and ensures institutional compliance with Tri-Council guidelines.

- Submission Stats for 2022: (includes certification, modification, renewal & closure): 9,549 applications.
- Time to Determination in 2022: (upon submission to REB) 44 days for CHREB (*certification only*) and 52 days for CFREB (*certification only*).
- Quality Assurance (QA) and Regulatory Compliance services are provided to ensure that all clinical research meets high-quality standards.
 - Due to the COVID19 pandemic and shutdowns, we only conducted 4 QA file reviews of investigator-initiated clinical trials and 1 QA file review of an industry-sponsored clinical trial
 - CITI Canada online training completed: 2597 people - Good Clinical Practice course; 1398 people - Health Canada Division 5 course; 621 people - Biomedical Ethics course; 425 people - Social and Behavioural Research course
- Hosting of IRISS in a virtual environment for better business continuity and reliability. REB Exchange was launched which enables a single ethics application for multi-site studies and reduces the burden on participating sites, REB administrators and the REB.

Intellectual Property

- Legal & Intellectual Property (IP) works closely with the Office of the Vice-President (Research), General Counsel, Deans, faculty, and Innovate Calgary. The team provides advice on the legal and business aspects of sponsored research and assists researchers in understanding options for commercialization.
- Legal & IP continues to expand its outreach within the University community to faculty, students, and other internal units to provide education on intellectual property and sponsored research.
- Innovate Calgary manages IP from UCalgary to maximize societal and economic benefit. To this end, in the 2020 AUTM survey, UCalgary has been ranked #1 in Canada for IP-driven startups, contributing 21 startups of the 104 in total from Canadian Universities. AUTM data for 2021 is not yet available, however there were 20 startups out of UCalgary.
- The breadth and diversity of research relationships sought by researchers continues to grow, and external partners span North and South America, Europe, Asia, and the Middle East, and include many prominent research institutes, governmental agencies, and corporations.
- The volume of research funding tied to commercial outcomes continues to grow and the Legal & IP team continues to be involved in supporting external partners in the testing and validation of inventions developed at the University of Calgary.
- The number of active NSERC partnership grants in 2021/22 is 66 (including Alliance, CRD, Engage/Engage Plus, I2I, IRC and SPG).
- The Legal & IP team continues to work closely with Innovate Calgary to ensure efficient progression of new inventions from the University environment into the commercial world.
- The University's Intellectual Property policy is currently under review to better support the research community.