

Research Support Fund Distribution

The University of Calgary and its affiliated institutions are committed to building a culture of research and innovation. The Research Support Fund (RSF) is invested in various services to support the research enterprise.

In 2022/23, 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, 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](#).

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 harness the power of research and innovation, 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 and community partnerships.

Affiliated Institutions

- Alberta Health Services (AHS)
 - Alberta Children's Hospital
 - Alberta Children's Hospital Research Institute
 - Alberta Precision Laboratories (formerly Calgary Lab Services)
 - Foothills Hospital
 - Peter Lougheed Centre
 - Rockyview General Hospital
 - South Health Campus
 - Tom Baker Cancer Centre

- 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 2022/23:

- 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.
- The completion of the build of a "research software support team" for UCalgary. The new team is now driving research software development for complex research data pipeline projects".
- Libraries and Cultural Resources (LCR) continues to implement a digital preservation system which ensures that our digital assets, including photos, digitized books, research data and thesis 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, which is now available, 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 80+, 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).
- Over 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), and Drupal (Funding Calendar), 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 2022-23: 776 studies assessed (5.6 days average assessment time); 451 data approvals processed (23.1 days average approval time); 366 UCalgary affiliated research staff actively managed for IT access; 208 Clinical research studies converted for Connect Care launch 4 & 655 Clinical research studies converted for Connect Care launch 5; 207 UCalgary affiliated research staff provisioned and trained for Connect Care 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 22,000 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 2023: (includes certification, modification, renewal & closure): 9,527 applications.
- Time to Determination in 2023: (upon submission to REB) 57 days for CHREB (*certification only*) and 59 days for CFREB (*certification only*).
- 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. There are currently over 400 sites utilizing the REBX with an average ethics review time of 4 days.
- Quality Assurance (QA) and Regulatory Compliance services are provided to ensure that all clinical research meets high-quality standards.
 - The team conducted 7 QA file reviews of investigator-initiated clinical trials and 2 QA file reviews of industry-sponsored clinical trials
 - Cumulative CITI Canada online training completed: 3055 people - Good Clinical Practice course; 1574 people - Health Canada Division 5 course; 670 people - Biomedical Ethics course
 - 10 new Clinical Trial Applications (CTAs) and 13 Clinical Trial Application Amendments (CTA-As) were reviewed by the QA office and approved by Health Canada

Intellectual Property

- Legal & Intellectual Property (IP) works closely with the Office of the Vice-President (Research), General Counsel, Deans, faculty, Innovate Calgary and other University units.
- The team provides advice on the legal and business aspects of partnered research activities and assists researchers in understanding options for commercialization.
- Legal & IP continues to expand its outreach within the University community to faculty, students, post-docs, and other internal units to provide education on intellectual property and partnered research.
- 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, validation and advancement of inventions developed both at the University of Calgary or externally by our partners.
- The Legal & IP team continues to work closely with Innovate Calgary to ensure efficient and effective commercial advancement of inventions from the University environment.
- The University's Intellectual Property policy is currently under review to better support the research community and commercialization of University invention for the public good.
- Innovate Calgary manages IP from UCalgary to maximize societal and economic benefit. For the last three years, UCalgary has been ranked #1 in Canada for IP-driven startups by the AUTM survey, contributing 16 of 101 total startups in Canada. Over the last five years, 92 tech startups came out of UCalgary, more than any other Canadian university. In 2023 Carbon Engineering, the world's largest direct air capture company founded by a UCalgary engineer, David Keith, sold for \$1.1 billion.
- The number of active NSERC partnership grants in 2022/23 is 148 (including Alliance, CRD, Engage/Engage Plus, I2I, and IRC).