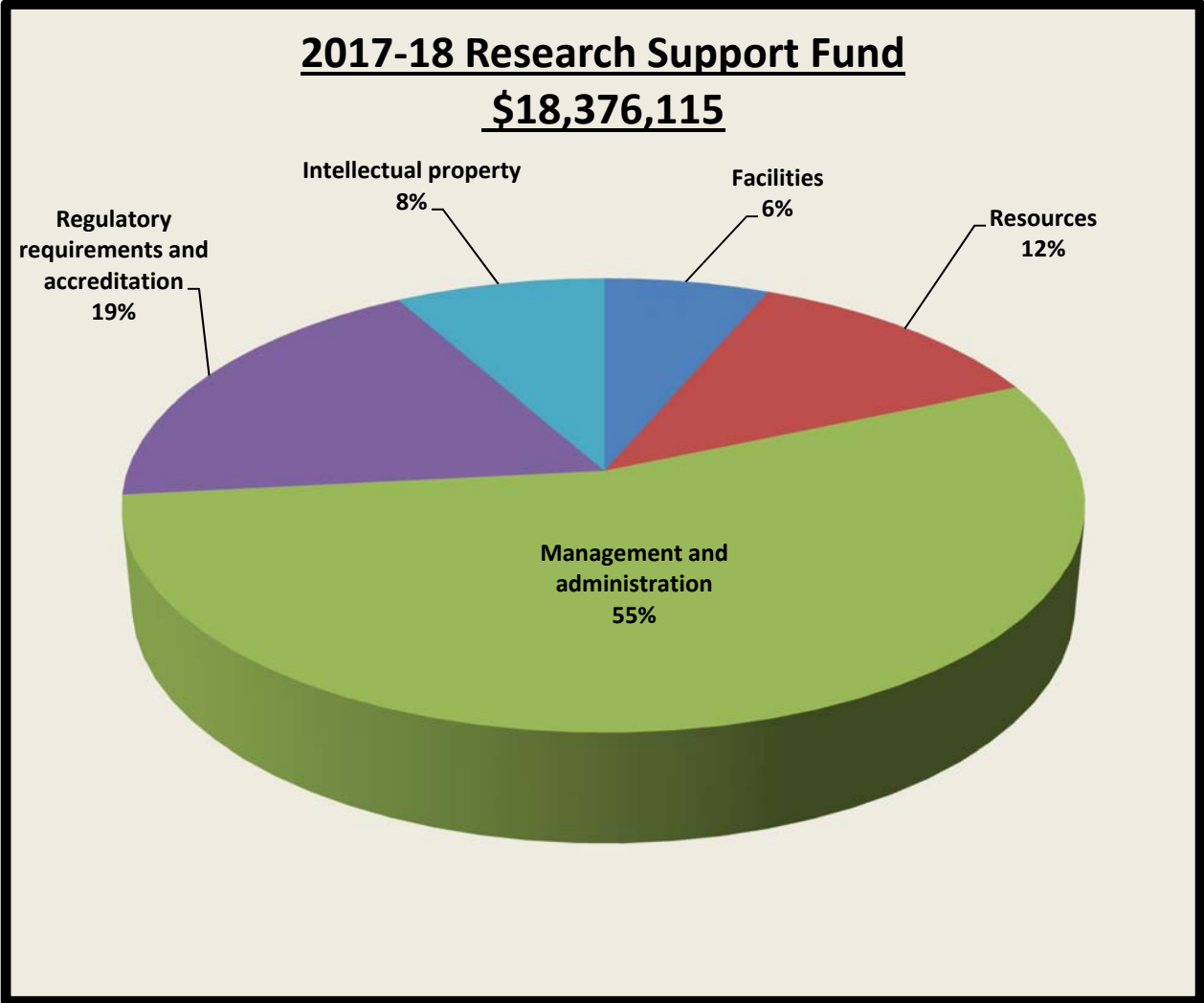


UALBERTA'S 2017/2018 FEDERAL RESEARCH SUPPORT FUND (RSF) REPORT

In 2017/18, the University of Alberta's Research Support Fund grant was \$18,376,115 and it was allocated to the following five categories:

1. Research facilities	\$ 1,179,702
2. Research resources	\$ 2,218,860
3. Management and administration	\$ 10,074,366
4. Regulatory requirements and accreditation	\$ 3,403,187
5. Intellectual property	\$ 1,500,000



Research Facilities

The Research Support Fund was used by the Faculty of Engineering for the renovation of lab space on two floors in the Natural Resources Engineering Facility (NREF). The intended programmed occupancies will focus on sustainable building construction and environmentally responsible and sustainable natural resource use. The renovated laboratory space will be integrated into a building information system and will add to the establishment of a 'living laboratory' for research focused on the creation and operation of sustainable laboratory buildings. Research occurring within these laboratory spaces will include the advanced building materials production and processing for sustainable construction technologies, integration of renewables sustainable building construction, ultra-low energy and environmentally responsible resource development. The provision of state of the art research facilities increases research productivity and has been an effective tool to recruit top researchers, including 12 faculty members in this fiscal year. These initiatives have a significant impact throughout the fields of engineering from mining to mechanics of materials to nanotechnology, increasing research capacity and productivity, and HQP training opportunities.

Research Resources

Research Support Funds made a difference in developing capacity in the area of clinical research. Within the Faculty of Medicine & Dentistry (FoMD), the Research Support Fund was used to increase patient and public engagement in clinical health research at the University of Alberta through the development of the [BeTheCure clinical trial database](#). Following the launch of BeTheCure, a variety of media outlets covered this project across the province (e.g., Edmonton Journal; Breakfast Television). In addition, the Kaye Edmonton Clinic (KEC) has agreed to cross-promote this initiative to all clinics (~35-40) within the KEC. The RSF likewise enabled the piloting of innovative systems (e.g., Clinical Trial Management System) and coordinating and conducting unique training events (e.g., one-day dry-run event) that would have otherwise likely been un-funded. These activities are often seen as 'value-added' services that can be difficult to fund but can greatly contribute to long-term goals in the clinical research domain.

The University's Health Sciences Laboratory Animal Services facility (HSLAS), a major facility in the Faculty of Medicine & Dentistry, receives research support funds to help support the university's commitment to ethical, humane and responsible use and care of animals used in research and teaching. Specifically HSLAS RSF funds are used to ensure our facilities are modern, and well maintained, routinely inspected and staffed by veterinary personnel and animal health technicians who provide care, enrichment, and housing to assure the animal health and wellbeing and that we meet/exceed national animal care standards and processes.

Research supported by HSLAS helps advance both human and animal health by advancing our knowledge and understanding of fundamental biological principles such as:

- How neural stem cells can build and repair the brain
- Periodontitis disease processes
- Production of transgenic mice and CRISPR-Cas9 genetic engineering, which in turn advances genome editing.

Management and Administration Research

The Research Support Fund continues to provide critical infrastructure within Alberta Health Services (AHS), an affiliate of the University of Alberta, to support University of Alberta-affiliated researchers' access to AHS resources vital to their clinical health research projects. The RSF contributes to a proportion of the annual licensing fee for the web-based, administrative platform that AHS uses to manage the large volume of diverse requests for AHS resources related to health research. As a custodian of health information and health service provider, AHS must meet its regulatory obligations to protect patient privacy, maintain a detailed health information disclosure log and monitor the chain of custody for information disclosed for research purposes. Additionally, as a health service provider, operational areas must delineate their resource utilization for health services and external research to maintain clear accountability and reporting back to the government. The implementation of EDGE, the AHS research administration platform, has enabled AHS to integrate its processes with the Northern Alberta Clinical Trials Research Centre (NACTRC) and each of the three Health Information Act designated Research Ethics Boards, including University of Alberta's Health Research Ethics Board, HREB. Integration has alleviated the administrative burden on the researchers, reduced duplication of administrative efforts and enabled the administrative centres to align processes and collaborate more effectively.

The RSF has also been used to recruit AHS staff who positively contribute to ongoing process improvements and increase the AHS' capacity to accommodate clinical research activities, such as development of policy that is more supportive of research, advocacy at the AHS senior executive level to better integrate research into clinical care, and negotiation with internal AHS stakeholders (such as contracting and procurement) to apply flexibility for innovation and research related requests.

Regulatory Requirements and Accreditation

The Research Support Fund contributed to a strong research environment through the support it provided to the University's Environment, Health and Safety (EHS) unit. Research produces biological, chemical and radioactive waste that must be disposed via well-established and defined processes. Vital to the research enterprise at the University of Alberta, EHS provides training and education opportunities, expert advice on all aspects of environment, health and safety matters, and comprehensive information from provincial and federal regulatory agencies to faculty, staff and students who do research. The unit undertakes a wide variety of audit and monitoring functions as well as ensuring the safe handling and disposal of hazardous waste in research laboratories. In the last year, a total of 1,905 laboratory spaces have been inspected at the University of Alberta. EHS staff provided expertise, timely responses and dedication to the University of Alberta research teams and ensured research staff received appropriate training and certification to complete their duties. For the period from April 1, 2017 to March 31, 2018, there were 12,197 course completions in a total of 30 courses.

Intellectual Property

TEC Edmonton, a joint venture of the University of Alberta and City of Edmonton, is the commercialization agent delivers business development and technology transfer services to companies

and innovators in the greater Edmonton region. TEC Edmonton's comprehensive programs help University of Alberta researchers become more successful: they get technologies to market faster, their businesses are more valuable, and the companies have a higher survival rate. One of the major ways that TEC Edmonton provides benefits to the University of Alberta is to assist in securing research grants that have a potential commercial component and for which funders require business plan information.

TEC Edmonton, as the official technology transfer office of the U of A, has strengthened the university's intellectual property portfolio by processing 91 new reports of invention and filing 55 new patents in 2017/18. TEC Edmonton has played key roles in assisting University of Alberta researchers in the formation of eleven new university spin-off companies and in raising \$860K in non-dilutive funds needed to move technologies toward market. TEC Edmonton assisted client firms in securing \$58.2M in critical investment dollars needed to run their operations. Tangible benefits of TEC Edmonton's work include a strong one-year survival rate of 86% and year-on-year increases of 86% in employment and 51% in revenue for University of Alberta client firms.