<table>
<thead>
<tr>
<th>Eligible Expenditure Category</th>
<th>Institutional Performance Objective</th>
<th>Indicator</th>
<th>Output</th>
<th>Targeted Outcomes</th>
<th>Outcome Reported at end of the year</th>
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<tr>
<td>Research Facilities</td>
<td>Full renewal of Aquatics head end water handling equipment in Aquatics Research Lab, Biological Science Department. Recognition of replacement equipment in next Canadian Council for Animal Care (CCAC) review removing the item as critical to continued research.</td>
<td>Construction to be completed by December 2018.</td>
<td>Renewal of head end base building infrastructure for Aquatics Research Lab. Systems have been identified as critical in terms of replacement requirements.</td>
<td>New headend systems and dechlorination system will ensure reliable aquatic environment for specimens mitigating future risk of system failure and impact to research and specimens. Dechlorination system has been installed and commissioned with new headend mechanical and electrical systems in place. Compliance with CCAC requirements will be met as soon as August 2019.</td>
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<td>Research Resources</td>
<td>Reliable, cost-effective access to current research resources for faculty and staff. These resources include access to subscription-based databases and electronic journals essential to modern university-based research communities.</td>
<td>Number of full text downloads for Elsevier Direct Package [part of Canadian Research Knowledge Network (CRKN) resources] will be measured.</td>
<td>RSF fund will be used primarily for CRKN journal subscription.</td>
<td>The target of 1 million full-text downloads was well exceeded, reaching 1.8 million downloads. Funds are being well used to meet researcher demand for access to the published research literature contained within the Elsevier Science Direct package.</td>
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<td>Management and administration of an institution’s research enterprise</td>
<td>Provide research administrative support for processing of new grants and awards as well as amendments.</td>
<td>2,400 new grants and awards setup, 2,800 amendments processed for 2018-19.</td>
<td>Provide necessary administrative support to UAlberta's research community and federal granting agencies.</td>
<td>In 2018-19, a total of 2,435 new grants/awards were processed and 3,097 amendments were completed.</td>
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<td>Regulatory requirements and accreditation</td>
<td>Much of UAlberta's research produces biological, chemical or radioactive waste; waste that must be disposed via well established and defined processes. The Environment Health and Safety (EHS) provide staff and facilities to ensure that waste products are disposed in approved processes.</td>
<td>Volume of hazardous waste processed: 88,000 liters of liquid waste and 12,500 kgs of solid waste.</td>
<td>Hazardous waste material stored in research environments is maintained at reasonable levels and is collected within two weeks of collection request.</td>
<td>The university continued to collect and dispose of hazardous wastes in a manner that meets all regulatory requirements. Research relies on this service and would not be able to proceed without a recognized waste disposal system. Year-end totals quantities of hazardous materials; 31,775 kg of biological wastes 51,000 liters of aqueous waste; 50,800 liters of solvent waste; 17,320 kg of solid non-regulate waste; 4,700 liters of liquid non-regulate waste.</td>
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<td>Continual development of an integrated Environment Health and Safety Management System of processes and procedures in research settings that efficiently meet regulatory requirements.</td>
<td>Improved compliance with regulatory requirements as measured by laboratory inspections, incident investigations and regulator's audits.</td>
<td>Continual adoption of new programs developed as part of the EHS Management System.</td>
<td>EHS met the goals for regulatory compliance and a total of 1071 hazard assessments completed across campus and 1577 University supervisors completed the online supervisors’ safety programs.</td>
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Technical staff/support for preclinical research activities of research laboratories across UAlberta to ensure that Canadian Council on Animal Care (CCAC) animal care and welfare standards are met or exceeded and that UAlberta retains a current CCAC Certificate of Good Animal Practice.

Preclinical research services to 140 researchers from seven faculties. Currently, there are 275 active Animal Use Protocols. This includes animal husbandry and care, technical services and training services for 339 research staff. Continue to maintain CCAC accreditation and a Certificate of Good Animal Practice necessary for UAlberta researchers to access Tri-Council funding.

Portion of Federal RSF allocated to preclinical research support staff and resources. Monitor number of researchers and active animal use protocols receiving preclinical research support services. Maintain UAlberta’s CCAC accreditation and research community access to Tri-Council Funding. New faculty recruitment of researchers who receive preclinical support services through HSLAS.

Training is one of the best safety controls and ensuring that workers are competent in their tasks is a regulatory requirement. The university has embraced safety training in an e-learning environment. For the period from April 1, 2018 to March 2019, there were a total of 13,553 course completions in a total of 32 courses.

| Intellectual property | # New inventions created in fiscal year 2018-19 | # New patents filed in fiscal year 2018-19 | Spin-offs created in fiscal year 2018-19 | Non-dilutive $5 raised by UA researchers in fiscal year 2018-19 | Growth in employment by UA clients in fiscal year 2018-19 | Access to investment by clients in fiscal year 2018-19 | Survival rates of UA clients | $1,500,000 invested in existing technology accelerator | # New inventions created in fiscal year 2018-19 | # New patents filed in fiscal year 2018-19 | Spin-offs created in fiscal year 2018-19 | Non-dilutive $5 raised by UA researchers in fiscal year 2018-19 | Growth in employment by UA clients in fiscal year 2018-19 | Access to investment by clients in fiscal year 2018-19 | One-year survival rate of clients | 100 inventions were created in fiscal year 2018-19 | 54 patents were filed in fiscal year 2018-19 | 10 spin-offs were created | Non-dilutive $1.7M raised by UA researchers in fiscal year 2018-19 | 46% growth in employment by UA clients firms in fiscal year 2018-19 | Access to investment by client firms in fiscal year 2018-19 target was exceeded | One-year survival rate of UA client firms was 90%

- Accelerate translation of new discoveries into marketable products by identifying, protecting, and facilitating development of new technologies emanating from University of Alberta inventors. Build connections between UAlberta inventors, industry and funding agencies to facilitate the development and transfer of technologies preferably through spin-off company creation. Operate the region’s largest technology accelerator, to build stronger linkages between the University and the entrepreneurial investment community.

- # New inventions created in fiscal year 2018-19 = 100
- # New patents filed in fiscal year 2018-19 = 50
- Spin-offs created in fiscal year 2018-19 = 5
- Non-dilutive $5 raised by UA researchers in fiscal year 2018-19 = $1M
- Growth in employment by UA clients in fiscal year 2018-19 = 4%
- Access to investment by clients in fiscal year 2018-19 = $20M
- One-year survival rate of clients = 90%

- 100 inventions were created in fiscal year 2018-19
- 54 patents were filed in fiscal year 2018-19
- 10 spin-offs were created
- Non-dilutive $1.7M raised by UA researchers in fiscal year 2018-19
- 46% growth in employment by UA clients firms in 2018-19
- Access to investment by client firms in fiscal year 2018-19 target was exceeded
- One-year survival rate of UA client firms was 90%