RESEARCH SUPPORT FUND & INCREMENTAL PROJECT GRANT SPENDING, OBJECTIVES, INDICATORS AND OUTCOMES

SFU RESEARCH

2020 - 2021

In 2020-2021, Simon Fraser University received **$7,242,096** in RSF grants and **$915,961** in IPG funding.

	OBJECTIVES	INDICATORS	TARGETED OUTCOMES	REPORTED OUTCOMES
FACILITIES	Support knowledge and creation exchange	Modern, safe, sustainable and well-equipped research facilities	• Quantity and quality of research space • Quantity and quality of technical support	Target met. The RSF successfully contributed to the quantity and quality of research space and technical support. The funding supports annual maintenance of a wide variety of research facilities across the university, including SFU's core facilities. Example: SFU's core facilities are purpose-built to house and provide access to infrastructure shared across the SFU community and beyond. These facilities allow for the pooling of resources at a university scale, providing opportunities to acquire world-class equipment and to realize economies of scale in facility management. In 2020-2021, the funding supported 4D LABS; ImageTech Lab; and the Containment Level 3 (CL3) Lab.
RESEARCH RESOURCES	Facilitate research at undergraduate, graduate, and faculty levels	Ubiquitous access to research and tools	• Amount and utilization of shared facilities and resources • Improvements to electronic information resources	Target met. The RSF successfully contributed to the amount and utilization of shared facilities and resources, and the improvements to electronic information resources. Example: SFU's Research Computing Group provides access to large-scale computing resources and large-scale storage facilities and is free for all SFU researchers.

MANAGEMENT & ADMINISTRATION	Maintain the effective operation of SFU's research enterprise	Efficient leadership and support, including accurate and timely reporting	• Quantity of funded research • Quality of research support and promotion • Effectiveness of information systems	Target met. The RSF successfully contributed to the quality of funded research and research support and promotion, as well as the effectiveness of information systems. Example: SFU's Institutional Strategic Awards (ISA) office is set up to increase success, reduce administrative burden and to make it possible for the university and faculty to successfully compete for the most significant and prestigious grants, prizes and awards available.
REGULATORY REQUIREMENTS	Maintain the highest level of ethical and safe conduct for research	Compliance with regulatory, financial and funding agency requirements	• Compliance with CCAC, Tri-Council Policy Statement • Quantity and quality of regulatory and technical support	Target met. The RSF successfully contributed to compliance with CCAC, Tri-Council Policy Statement, and the quality and quantity of regulatory and technical support. RSF continues to provide support of regulatory bodies. Example: Research Ethics educates researchers in the policies and process of research ethics and ethics review and facilitates the review process conducted by the SFU Research Ethics Board and its subcommittees.
INTELLECTUAL PROPERTY & KNOWLEDGE MOBILIZATION	Mobilize research for social and economic benefit	Intellectual property and technology transfer activity	• Quantity and quality of IT/tech transfer activity	Target met. The RSF successfully contributed to SFU's quantity and quality of IT/tech transfer activity. This funding contributes to positions that help support faculty, graduate students and university researchers in the strategic management of the intellectual property they generate through their inventions. Examples:

				SFU VentureLabs accelerates science, technology, and innovation-based companies that have winning value propositions and strong potential to scale up. SFU's Partnerships Hub facilitates and supports external partnerships. It helps connect partners to the right expertise and resources to build and grow impactful relationships. The Hub connects stakeholders with SFU's Technology Licensing Office to deliver intellectual property protection and technology licensing services and support.
OVERALL IMPACTS	Achieve national and international leadership in research and innovation	Outcomes of SFU's strategic research and innovation initiatives	• Attraction of outstanding faculty and students • Growth of research funding • Number of research collaborations • Recognition of research and innovation excellence • Contributions to economic and social development	Some examples of the overall impacts from the RSF include: • SFU is among Canada's fastest growing research-intensive universities in Canada. Our sponsored research income has grown by 86% over the past 10 years, reaching $167.3M in 2020. • SFU ranked number one globally for its impact on sustainable cities and communities and was among the world's top 10 universities for its commitment to tackling climate change, according to Times Higher Education's (THE) 2020 University Impact Rankings. The rankings measure global universities' social and economic contributions toward meeting the United Nations' Sustainable Development Goals, or SDGs. See SFU News story. • The World's Universities with Real Impact (WURI) ranked SFU 34th for innovation, 29th for industrial application and seventh for its entrepreneurial spirit. See SFU News story. • In March 2020, the university announced a new, five-year sustainability plan and joined more than a dozen Canadian universities to sign a charter furthering our commitment to address global climate change. See SFU News story. • SFU's research is guided by a strategy for wide-reaching collaborations at the local, national and

				international levels. This strategy supports knowledge generation and transfer across many sectors. SFU has an international footprint of partnerships with 2947 institutions in 125 countries. Learn more about SFU International relationships, knowledge and resources. • Six SFU faculty members were named Fellows to the Royal Society of Canada, and one named as a member of the College of New Scholars, Scientists and Artists. See SFU News story. • The university's innovation strategy, SFU Innovates, continues to engage SFU researchers, staff and students with our communities and partners to solve societal challenges through innovation and entrepreneurship. We are Canada's academic leader in innovation. • SFU's Containment Level 3 (CL3) Lab was established as an SFU core facility. The lab is one of a few biosecure facilities in Canada that are certified to meet the highest safety standards defined by the Public Health Agency of Canada. Researchers can safely conduct research activities on Risk Group 3 pathogens, including those that may lead to breakthrough discoveries against human diseases. Learn more.

INCREMENTAL PROJECT GRANT (IPG) OUTCOMES

IPG PRIORITY AREA	PROJECT TITLE	OUTPUT (INVESTMENT OF IPG GRAND FUNDS)	PERFORMANCE OBJECTIVE	PERFORMANCE INDICATOR	TARGETED OUTCOMES	REPORTED OUTCOMES
FACILITIES RENEWAL, INCLUDING DEFERRED MAINTENANCE (RESEARCH FACILITIES)	SFU ImageTech Lab	$132,981 invested to support the growth of neuroimaging research capacity at one of SFU's core facilities	Advancing neuroscience and mental health research and accelerating innovation in health technology devices by bringing new studies into development and by conducting active scanning	1. The number of patient scans (by adult/children population groups) 2. Number of research projects that engaged the facility 3. Number of researchers that access the facility 4. Number of external partnerships 5. Revenue	Move five studies presently in development into active scanning, and to bring five new studies into development. This will contribute to a growth in revenue between 25-40%, helping move towards self-sustainability, while contributing to community health outcomes and technology development. Serve as a place of training for students and health professionals, with increased engagement through tours and presentations.	Due to COVID-19 restrictions on research activities that precluded research scans from occurring, the lab spent the past year focused on developing new services and partnership opportunities to expand use of the lab facilities by SFU researchers and external collaborators. There were four new research studies that engaged the ImageTech Lab this past year. Planning and technical development are underway for these, and scanning will resume once COVID-19 restrictions on research are lifted. Two new MR physics researchers are being recruited to join the ImageTech Lab. A new endowed LEEF

						Chair in Neuroscience across the lifespan is joining SFU to expand the translational research capacity of the lab. In addition, the ImageTech Lab recently developed two new partnerships with other local health entities.
FACILITIES RENEWAL, INCLUDING DEFERRED MAINTENANCE (RESEARCH FACILITIES)	4D LABS Service Expansion	$207,980 invested to support the operations and expansion of the fast-growing services offered by 4D LABS	Expanding capacity of 4D LABS and providing services to academic and industry users to solve problems at any scale	1. Number of active users (by group, e.g. by university and industry) 2. Number of HQP accessing the facilities 3. Total number of invoices 4. Invoice amounts by facility	Provide services to a growing number of users. Expansion of services to enable the facility to exceed $1M in revenue and engage a larger researcher and HQP userbase.	4D LABS, SFU's state-of-the-art materials fabrication and prototyping core facility, continued to grow in 2020-21 despite the pandemic. It added more customers, trained more users, and had an exceptional year for invoice generation. The total invoice amount increased from $1.07 million last year to $1.3 million this year. As an essential facility on campus, it was able to support critical academic research and provide facilities to support multiple companies and preserve jobs.

FACILITIES RENEWAL, INCLUDING DEFERRED MAINTENANCE (RESEARCH FACILITIES)	Core Facility Containment Level 3 Research Lab (CL3 Lab) Start-up	$75,000 invested into the establishment and start-up operations of the Core Facility Level 3 Research Lab (CL3 Lab) for medical research	Establishing the CL3 Lab as an SFU core facility and attracting industrial collaborations for medical research and vaccine development applications, with a significant role in research into the SARS-COV-2 virus	1. Number of active projects 2. Number of HQP accessing the facility 3. Number of external collaborators 4. Number of facility users 5. Number of scientific outputs	Attract academic researchers and medical professionals to its facility to conduct research programs with specific deliverables. Researchers, graduate students, faculty members, and external partners use this certified level 3 biosafety lab to perform research using biosafety level 3 organisms.	The CL3 Lab is fully certified and active for use (October 2020). Since the CL3 Lab was certified, SFU researchers have been safely working on better understanding SARS-CoV-2 and how it causes COVID-19. There were seven full-time users of the laboratory, including faculty, graduate students and staff researchers. The active and certified CL3 Lab has allowed for the import of other variants of SARS-CoV2 to be studied.
INNOVATION AND COMMERCIALIZA-TION ON ACTIVITIES (INTELLECTUAL PROPERTY AND KNOWLEDGE MOBILIZATION)	Strategic Partnerships Hub	$500,000 invested to scale up the Strategic Partnerships Hub (SPH)	Increasing the SPH's capacity to bring SFU researchers and external partners together for knowledge generation and knowledge mobilization. As we transition from COVID-19 emergency response, the SPH will play an important role in supporting	1. # of companies engaged 2. # of government organizations engaged 3. # of collaborative projects supporting/address ing economic recovery 4. % increase of leads generated 5. $ of external funding to SFU for research, services, and advancement	An expansion of the Hub's services to connect a growing segment of external partners to its researchers and deliver initiatives of mutual benefit that support economic recovery.	During this fiscal year, SFU's Strategic Partnerships Hub supported partner engagement across SFU's eight faculties. Over 75 companies were engaged, encompassing sectors such as agritech, information and communications technology and artificial intelligence AI, cleantech, the life sciences, and more. Over 15 governmental

| | | | regional and national economic recovery plans | facilitated by SPH | | organizations were engaged at the federal, provincial and municipal levels. The SPH was involved in four collaborative projects supporting economic and social recovery, as well as the development of two major initiatives focused on supporting post-pandemic economic and social recovery. Approximately 680 people were engaged at SPH-led outreach events highlighting SFU's strengths, its innovation and knowledge mobilization activities, and featuring SFU researchers with our external partners. Finally, SPH facilitated $2 million in external funding opportunities for SFU for research, training and consulting. |