

Life Sciences Fellowship Program Evaluation Report

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1. INTRODUCTION

1.1 Background

The Life Sciences Fellowship (LSF) program, delivered by Innovate Calgary, supports early-stage life sciences startups in Alberta by providing financial, technical, and business development resources. The program has attracted funding from Alberta Innovates, Calgary Economic Development's Opportunity Calgary Investment Fund, and other partners. The Life Sciences Innovation Hub (LSIH)—where participating companies are incubated—receives additional support from provincial and federal agencies, including the Alberta Ministry of Jobs, Economy and Northern Development and Prairies Economic Development Canada. The program has also benefited indirectly from national initiatives such as ElevateIP.

Each fellowship provides up to \$200,000 in non-dilutive funding over two years. The funds are intended for founder salaries, business development, and operational costs. In addition to financial support, fellows benefit from tailored business training, access to expert advisors, and networking opportunities with industry professionals. Dedicated workspace and laboratory facilities at the Life Sciences Innovation Hub (LSIH) give startups the infrastructure needed for research and product development.

Applicants from outside Calgary—or even outside Alberta—are welcome; however, accepted founders must relocate to Calgary for the duration of the program, maintain an active presence at the LSIH, and position their ventures for long-term growth in Alberta. Throughout the two-year fellowship, companies work toward defined business and technical milestones with structured guidance and advisory support.

Designed for startups developing technology-driven solutions at Technology Readiness Levels (TRL) 4 to 6, the LSF program helps researchers and technical talent transition into entrepreneurial careers. By combining funding, infrastructure, and professional development, the program accelerates commercialization and strengthens Alberta's life sciences ecosystem.

1.2 Objectives of the Evaluation

The purpose of this document is to assess the effectiveness of the Life Sciences Fellowship (LSF) program. The evaluation and methodology implemented to gather data focused on capturing the following objectives:

1. Understand the measurable outputs and outcomes from the LSF
2. Understand how fellows experienced the program and used its supports
3. Assess the LSF's role in Alberta's innovation and life sciences ecosystem

This report outlines the results of the data analysis and engagement. The evaluation was not intended to develop specific recommendations for future program changes but to provide independent analysis of data and feedback collected from various program fellows, program developers, ecosystem members, and non-fellows. The primary focus is on understanding the effectiveness of the program, the role it plays for entrepreneurs and any areas of improvement.

1.3 Approach and Methodology

To ensure the evaluation captures a comprehensive range of perspectives and experiences associated with the LSF, a multi-method approach was applied. This approach combined qualitative and document-based methods to gather evidence from a diverse set of stakeholders, ensuring findings reflect both individual experiences and system-level perspectives.

Stakeholder Engagement

The evaluation engaged four key stakeholder groups:

- **Program Alumni** – to understand their experience in the program, including the value of supports received, the challenges encountered, and the extent to which participation contributed to their business and professional development.
- **Program Developers and Supporters** – including Innovate Calgary staff and partners directly involved in program design and delivery, to capture insights into program objectives, implementation processes, and lessons learned.
- **Ecosystem Members and Funders** – to explore how the program fits within Alberta's broader innovation ecosystem, its alignment with funder priorities, and its perceived contribution relative to similar initiatives.
- **Shortlisted or Non-Fellows** – to gather external perspectives on program accessibility, barriers to entry, and the availability of alternative supports.

Stakeholder Group	Key Focus	Number of Fellows
<i>Program Developers & Supporters (internal/external)</i>	Program design rationale, implementation lessons, strategic intent	4
<i>Program Alumni</i>	Experience, commercialization journey, startup status, feedback	7
<i>Shortlisted Non-Fellows</i>	Program awareness, perceived value, barriers, other supports accessed	2
<i>Ecosystem Partners</i>	Ecosystem fit, comparative value, future recommendations	5

Data Collection Methods

A tailored mix of qualitative interviews and document analysis was used. Semi-structured interviews were conducted with representatives from each stakeholder group, allowing for consistent data

collection while providing flexibility to explore unique perspectives. Secondary data sources—including program reports, quarterly metrics, and prior evaluation summaries—were reviewed to triangulate findings and enhance validity.

Analytical Approach

Data from interviews were coded thematically, with emerging themes aligned to the evaluation objectives. Triangulation across stakeholder perspectives and secondary sources strengthened the reliability of findings, while attention was given to identifying both common patterns and divergent experiences. Where appropriate, illustrative quotations and examples are used in the findings to convey authentic stakeholder voices.

Methodological Limitations

As with all evaluations, certain limitations should be noted. The relatively small sample sizes across all stakeholder groups may not fully represent the diversity of experiences within the LSF ecosystem. While the evaluation team made extensive efforts to engage all potential fellows, response rates varied by group.

A total of 50 individuals were contacted across stakeholder categories, including 19 program fellows, 17 shortlisted non-fellows, 5 program developers, 2 funders, and 6 ecosystem partners. Of these, 18 completed interviews and 2 additional interviews were scheduled but not completed within the reporting period. Despite multiple follow-ups (typically three to four per contact), some messages were undeliverable or received no response.

The notably small number of interviews with shortlisted non-fellows (2 of 17, or ~18%) reflects both challenges in reaching individuals whose ventures were no longer active and a degree of non-response despite direct and Innovate Calgary-facilitated outreach.

Data are based primarily on self-reported perceptions, which may be influenced by recall bias or personal perspectives. Additionally, while secondary documents provided valuable context, not all program outcomes were independently verifiable.

To mitigate these limitations, findings were triangulated across multiple data sources—including interviews, documents, and program records—and care was taken to present balanced interpretations that reflect both convergent and divergent views. This combination of stakeholder engagement, systematic follow-up, and cross-validation supports a robust and credible assessment of the LSF's design, implementation, and outcomes.

1.4 Structure of the Report

The remainder of this report is organized into three main sections, followed by supporting appendices:

- **Chapter 1: Introduction**

This chapter provides an overview of the Life Sciences Fellowship (LSF) program and the context for this evaluation. It outlines the program's purpose, funding, and evolution, followed by the objectives, approach, and methods used in the evaluation. The section concludes with

a description of methodological limitations and steps taken to ensure the validity and reliability of findings.

- **Chapter 2: Profile of the LSF**

This chapter provides background on the LSF, including its objectives, delivery model, and the roles and responsibilities of program developers, alumni, ecosystem partners, and non-fellows. It sets the context for understanding how the program is designed and positioned within Alberta's life sciences and digital health ecosystem.

- **Chapter 3: Evaluation Findings**

This chapter presents the results of the evaluation, structured around three domains: program outcomes, fellow experience, and ecosystem contribution. It synthesizes insights from interviews, document review, and secondary data analysis to highlight both achievements and challenges of the program. Findings are illustrated with quantitative results, fellow perspectives, and examples of impact to provide a comprehensive view of the program's effectiveness and areas for improvement.

Together, these sections move from program description to analysis of outcomes and finally to supporting detail, ensuring that the report is clear, evidence-based, and accessible to a wide range of stakeholders.

2. PROFILE OF THE LSF

The LSF, developed and delivered by Innovate Calgary, is a cornerstone initiative supporting the commercialization of health and life sciences innovations in Alberta. Established to bridge the gap between research and market readiness, the program provides a comprehensive package of financial, technical, and business development supports to early-stage companies. Its overarching aim is to accelerate the growth of innovative startups, develop entrepreneurial talent by strengthening the business acumen of researchers, reinforce Alberta's entrepreneurial ecosystem, and contribute to the province's broader economic development.

2.1 Program Objectives

The LSF is designed with a dual focus: advancing technology-driven health and life sciences solutions and supporting the entrepreneurs behind them. Its objectives include:

- Accelerating the commercialization of innovations that address unmet needs in digital health and life sciences.
- Supporting founders to establish, grow, and scale startups, with a clear pathway to market entry.
- Providing expert advisory, training, and professional development opportunities that enhance entrepreneurial and technical capacity.
- Ensuring access to infrastructure such as laboratory space, office facilities, and research equipment at the LSIH.
- Facilitating connections with investors, industry partners, and the broader innovation ecosystem to strengthen companies' networks and sustainability.
- Enabling startups to meet targeted business and technical milestones, such as intellectual property protection, securing follow-on funding, and expanding teams.

By supporting both the entrepreneur and the venture, the program aims to develop commercially viable companies that contribute to Alberta's life sciences sector and to the global marketplace. Equally important, the program focuses on building entrepreneurial talent—enhancing the business capabilities of researchers so they can apply these transferable skills in future ventures or other innovation-driven career paths.

2.2 Key Roles and Responsibilities

The LSF is built on a collaborative model that draws on the expertise and resources of multiple stakeholders:

- **Innovate Calgary (Program Developer and Operator):** Leads program design and delivery, manages fellow selection and milestone tracking, coordinates advisory and training, and provides access to financial and infrastructure supports.
- **Program Alumni:** Act as both beneficiaries and contributors, leveraging program supports to advance their startups while sharing insights and informal mentorship with future cohorts.

- **Ecosystem Partners and Funders:** Organizations such as Alberta Innovates and Calgary Economic Development provide financial resources, strategic partnerships, and complementary supports.
- **Non-Fellows and Wider Ecosystem Contributors:** Shortlisted applicants and other innovators—while not formally part of the program—remain engaged within Alberta's innovation landscape through related initiatives, complementary supports, and community-building activities. One of the keystone networking opportunities is the monthly Founders Lunch series, hosted by Innovate Calgary, which plays a key role in this continued engagement. The Founders Lunch is a dynamic luncheon-format event that brings together early-stage founders, industry experts, startup support professionals and ecosystem partners. Each session features a topic-focused panel or workshop (for example: "Marketing Mistakes We Made – So You Don't Have To" and "Crowdfunding Doesn't Have to Be Scary"), giving both fellows and non-fellows access to practical insights, shared experiences, and peer networking opportunities. The format fosters peer-to-peer learning, cross-venture collaborations, and reinforces community bonds across the life sciences and broader tech startup ecosystems. By including non-fellows in this forum, the program extends its reach beyond the formal intake cohort, enabling shortlisted applicants and other innovators to tap into the same ecosystem of mentors, networks and learning momentums. In doing so, the program not only supports ventures but helps build a stronger, connected ecosystem where knowledge and relationships flow freely between fellows and non-fellows alike.

Together, these groups ensure the program is well-integrated into Alberta's life sciences ecosystem, extending its impact beyond individual companies to the broader entrepreneurial environment.

2.3 Program Delivery Model

The fellowship is structured as a two-year, full-time program. Each participating startup receives up to \$200,000 in non-dilutive funding, which must be applied toward founder salaries, business development, and operational expenses. This financial support is coupled with:

- **Structured Curriculum and Training:** A series of workshops, seminars, and one-on-one coaching sessions covering critical topics such as business planning, regulatory requirements, investment readiness, and market strategy.
- **Expert Advising:** Access to a diverse pool of industry advisors who provide targeted guidance on technical, business, and commercialization challenges.
- **Infrastructure and Resources:** Workspace and laboratory access at the LSIH, ensuring fellows have the tools necessary for research, prototyping, and development.
- **Networking and Ecosystem Integration:** Opportunities to connect with investors, partners, and peers through industry events and cohort-based activities.

The program emphasizes accountability through milestone tracking, ensuring that fellows demonstrate tangible progress in both business and technical areas throughout their participation.

2.4 Program Evolution

Since its inception, the LSF program has adapted to a changing landscape—responding to shifts in partnership opportunities, funding environments/priorities, and evolving governance structures. Program refinements have also been informed by feedback from fellows, ensuring that design and delivery remain relevant to commercialization pathways and sector needs.

2.4.1 Funding Commitments and Financial Evolution

The Life Sciences Fellowship program relied on multiple funding partners over its duration. For Cohorts 1 and 2, OCIF provided the bulk of fellowship support, enabling Innovate Calgary to launch the program and deliver comprehensive resources for early-stage life sciences ventures.

Alberta Innovates learned of the program after its launch and approached Innovate Calgary about joining as a co-funder. At the time, Alberta Innovates had been exploring opportunities to better address gaps in research commercialization and entrepreneurial talent development, in alignment with health innovation priorities outlined in the Alberta Research and Innovation Framework (ARIF).

Alberta Innovates subsequently joined as a co-funder, contributing \$2.13 million to expand the program through the inclusion of a Digital Health priority stream and enhanced recruitment across Alberta. This investment supported most fellowships in Cohorts 3 and 4 and fully funded Cohort 5, which was added to maximize use of available resources following earlier rounds with a smaller than anticipated pool of competitive applications.

2.4.2 Impact of Funding Fluctuations on Program Focus and Cohort Composition

Throughout the program, the absence of a single dedicated funding source meant that contributions from different partners shaped areas of emphasis at different stages. For example, OCIF prioritized local economic impact in Calgary across the full Life Sciences spectrum, while Alberta Innovates focused on provincial impact aligned with the health innovation priorities in ARIF. OCIF's contribution was made to Innovate Calgary at an organizational level rather than being formally earmarked for the LSF program. As a result, the extent to which OCIF funding would ultimately be allocated to support LSF activities was not always confirmed in advance. In contrast, Alberta Innovates provided a direct investment specifically designated for the health-related stream within the LSF program. This complicated matters at times by leaving some uncertainty about the available funding from each source when a new cohort competition was being planned. While there was an effort to ensure that the most promising applications were supported in each cohort competition while balancing funder priorities, Alberta Innovates being the primary funder of later cohorts ultimately shaped the cohort composition (more of Digital Health/Health focus).

2.4.3 Governance and Steering Committee Role

Once Alberta Innovates joined the program as a co-funder, a formal governance structure was introduced through a Steering Committee with equal representation from Innovate Calgary and Alberta Innovates. The committee was responsible for approving competition materials, review criteria, and adjudication processes; confirming successful fellows based on reviewer recommendations; and overseeing communications such as news releases. It also managed conflict-of-interest plans, addressed major issues related to fellow performance, and recommended organizations that could provide mentorship, professional development, or infrastructure support.

Beyond these operational duties, the committee served as a strategic forum for refining processes and balancing priorities across cohorts. It was most active during Cohorts 3 and 4, contributing to improvements in eligibility criteria, marketing strategies, and review protocols.

2.4.4 Program Delivery, Curriculum, and Design Enhancements

Alongside changes in funding and governance, the LSF has continued to refine its delivery model and curriculum in response to fellow feedback and external conditions. Fluctuations in funding influenced cohort size and scope, while the program maintained its core principle of providing non-dilutive financial support to founders.

During the COVID-19 pandemic, the LSF integrated virtual delivery methods and subsequently adopted a hybrid model to enhance flexibility and accessibility. Based on fellow feedback, core sessions were shortened from full-day to half-day formats to better accommodate founders' operational demands. Scheduling was further optimized by consolidating sessions to Tuesday through Thursday of the first week of each month, allowing fellows to plan more effectively.

Recognizing the value of peer learning and community, the first day of each workshop week was redesigned to focus on peer-to-peer engagement, including fellow updates, shared problem-solving, and mutual support.

2.4.5 Advisor Network and Ecosystem Integration

The Expert Advisor Program has also evolved, with a more structured matching process and an expanded roster of advisors offering expertise aligned with founders' needs. Beyond formal mentorship, the LSF has deepened its integration within Alberta's innovation ecosystem through partnerships with organizations such as Alberta Innovates, Platform Calgary, and Creative Destruction Lab (CDL). These relationships provide complementary supports and clearer post-program pathways for fellows as they scale their ventures.

3. EVALUATION FINDINGS

The evaluation plan provides the overarching framework for assessing the Life LSF's design, implementation, outcomes, and ecosystem contributions. It includes a structured set of objectives and evaluation questions that guide all aspects of data collection, analysis, and reporting.

This framework ensures alignment with Innovate Calgary's strategic priorities and reflects core principles of utility, rigour, and inclusivity. Organized into three key domains—Program Outcomes, Fellow Experience, and Ecosystem Contribution—the evaluation aims to capture a comprehensive view of the program's effectiveness, relevance, and impact. The core questions presented in this section form the foundation for all subsequent data collection and analysis activities, ensuring that the evaluation generates actionable insights and identifies meaningful opportunities for improvement.

Objective Area	Evaluation Objective	Key Evaluation Questions
Program Outcomes	Understand the measurable outputs and outcomes from the LSF	<ul style="list-style-type: none"> • How many fellows completed the program? • What are their current roles and career paths? • What startups were launched and supported? • What funding was secured (dilutive/non-dilutive)? • How many jobs were created? • What patents/regulatory filings occurred?
Fellow Experience	Understand how fellows experienced the program and used its supports	<ul style="list-style-type: none"> • What components were most valuable (funding, facilities, advisors, curriculum)? • What barriers did fellows encounter? • What suggestions do they have for improvement? • How well did the program meet their needs overall?
Ecosystem Contribution	Assess the LSF's role in Alberta's innovation and life sciences ecosystem	<ul style="list-style-type: none"> • What role does the program play in supporting commercialization? • How does it compare to similar programs? • What gaps or needs does it fill? • How might it evolve to stay relevant?

3.1 Program Outcomes

- How many fellows completed the program?
- What are their current roles and career paths?
- What startups were launched and supported?
- What funding was secured (dilutive/non-dilutive)?
- How many jobs were created?
- What patents/regulatory filings occurred?

According to second quarter 2025 Metric Summary results, nineteen fellowship companies participated in the Life Sciences Fellowship program. This is broken down by the following sectors:

Table 1: Fellowship Companies Served by Sector

Fellowship Companies by Sector	#	%
Medical Devices and Diagnostics	8	38%
Medical Software and Services	4	25%
Wellness and Wearables	3	19%
Therapeutics	3	19%
Agriculture and Environment	1	6%
Total	19	100%

During the period covered by this evaluation, Life Sciences Fellowship recipients achieved strong follow-on funding and commercialization outcomes, in addition to the direct supports provided through the LSF program.

Follow-on funding and commercialization outcomes include:

- \$6.5 million in follow-on grant funding secured
- \$2.56 million in follow-on investment secured
- 35 new jobs created
- 14 regulatory filings submitted
- 20 patent applications filed
- 4 patents issued

These outcomes reflect funding and commercialization activity secured by fellows during the Life Sciences Fellowship, rather than funding awarded directly by the program.

In addition to these outcomes, the program delivered substantial capacity-building support. Fellows participated in over 260 hours of dedicated professional development, complemented by 2,478 hours of expert advising delivered across multiple domains, including business development, investment readiness, regulatory strategy, intellectual property, and product or technology development.

Fellows reported accessing follow-on funding from a broad range of provincial, federal, academic, and private-sector sources. Commonly cited programs and mechanisms included Alberta Innovates funding streams (e.g., Voucher Program and AICE—Concepts, Validate, and Market Access), NRC IRAP, Mitacs, SR&ED tax credits, PrairiesCan, Calgary Economic Development and OCIF programs, Creative Destruction Lab (CDL), university translational funding, and private or angel investment. While dollar values by funding source were not consistently available, these findings demonstrate the breadth of the innovation ecosystem leveraged by fellows following participation in the LSF.

Table 2: Expert Engagement Hours Delivered by Category

Expert Engagement Category	#	%
Business Development	1,005	41%
Design & Quality	702	28%
Market & Competition	242	10%
Investment	220	9%
Intellectual Property	175	7%
Team Capacity	16	1%
Total	2,478	100%

3.2 Fellow Experience

- What components were most valuable (funding, facilities, advisors, curriculum)?
- What barriers did fellows encounter?
- What suggestions do they have for improvement?
- How well did the program meet their needs overall?

3.2.1 Valuable Components of the LSF

According to program alumni, funding, advisory opportunities, and lab access were some of the main components' fellows found to be the most helpful.

The program's multifaceted support system played a pivotal role in advancing fellows' projects, as evidenced by their feedback. Funding was a cornerstone, providing essential financial stability and enabling progress without equity dilution. Expert advisory offered valuable guidance, though its effectiveness varied, prompting calls for a broader range of expertise. Lab access proved indispensable for research-intensive projects, offering cost-effective solutions and necessary equipment. The curriculum and workshops were beneficial, yet fellows suggested enhancements for greater flexibility and alignment with their needs. Networking within the cohort fostered a supportive environment for idea exchange and collaboration. While the program's structure provided crucial guidance, some fellows noted the need for adjustments to better match their developmental stages. The results are as follows:

- **Funding:** Several fellows emphasized its importance, with one stating that without financial support, progress would be impossible, highlighting the necessity of funding for advancement. Another noted that the funding was instrumental in moving their project forward, indicating its role in facilitating development. The non-dilutive nature of the funding was appreciated, as it allowed companies to maintain equity while ensuring financial stability for a period. Additionally, funding enabled fellows to cover essential expenses, such as paying bills and hiring contractors, which were crucial for sustaining operations and advancing their projects.
- **Expert Advisory:** One fellow mentioned that working with advisors was beneficial, and some advisors even invested in their companies—demonstrating the potential for these engagements to lead to further opportunities. However, there were suggestions for improvement, including a desire for a broader range of expertise on the advisory panel to address different aspects of commercialization and venture building. Feedback indicated that the quality of advisory support varied depending on the alignment between advisor expertise and company needs, underscoring the importance of effective matchmaking and maintaining a diverse roster of advisors with relevant commercialization experience.
- **Lab Access:** One fellow described the lab space as the most economical they had encountered, indicating its cost-effectiveness. For projects requiring extensive research and development (R&D), lab access was crucial for product development, as noted by another respondent. While not all fellows prioritized lab space, those who did found it beneficial, especially when it provided access to equipment they lacked.
- **Curriculum/Workshops:** Some fellows found specific workshops incredibly helpful, particularly those focused on intellectual property, business and commercialization planning, and marketing. There was an expressed desire for a library of recorded talks to access when needed, as the timing of activities did not always align with company needs. The coursework was generally seen as helpful, with one respondent noting its importance in providing structure.

- **Networking/Cohort Experience:** Fellows appreciated the opportunity to connect with other founders facing similar challenges, which facilitated the exchange of ideas and advice. Being part of a group of people on similar start-up journeys was seen as helpful for learning from others' experiences. This networking aspect provided a support system and helped fellows identify who to talk to for different needs.
- **Program Structure and Timing:** One fellow mentioned that the activities were not always in sync with their company's stage, suggesting a need for greater flexibility in accessing learning resources. Another respondent felt that their company was further along than the program's content was targeting, highlighting variation in fellow readiness and company maturity across cohorts. Despite these challenges, the structured format was seen as valuable by some, providing necessary guidance and accountability. These observations suggest opportunities to enhance cohort alignment and adapt certain learning modules to better fit the range of company stages represented in future cohorts.

Program developers believe personalized coaching, financial support and practical training are some of the most important components of the LSF.

The program effectively supports fellows through a combination of coaching by the program manager, financial backing, expert advisory, and practical training. Regular coaching sessions with the program manager help fellows stay focused and reach their goals, while structured expert advisory engagements provide specialized guidance and connections. Non-dilutive funding provides essential financial support without affecting company ownership. The curriculum offers vital business skills, aiding the transition from academia to market commercialization. Access to shared labs and resources is crucial for research-based companies, and in-person sessions help build strong relationships and trust. Regular check-ins foster accountability and motivation, creating a supportive environment for success. A more detailed description of results are as follows:

- **One-On-One Coaching Session, Advisory and Ongoing Support:** Respondents emphasize the personalized approach that one-on-one coaching sessions provides, which workshops cannot replicate. This personalized coaching is seen as crucial for maintaining focus and achieving specific goals, particularly for first-time entrepreneurs who may struggle with scattered efforts. The ongoing engagement from program manager and expert advisors is noted as providing substantial value, with regular meetings helping to keep fellows on track.
- **Non-Dilutive Funding:** The availability of substantial non-dilutive funding (\$200,000) is noted as a rare and valuable resource for fellows. This funding is particularly important at the inflection point where fellows need to invest in product and business development. The financial support allows fellows to focus on venture development without the pressure of diluting their ownership.
- **Curriculum and Workshops:** Respondents note that the curriculum has been refined to meet the needs of early-stage companies, covering essential topics such as incorporation, shareholder agreements, and preparing pitch decks for raising capital. The structured routine of monthly curriculum sessions, combined with one-on-one coaching sessions and definition of tangible deliverables, helps fellows transition from academia to the business world. In-person workshops during the first year are highlighted as a requirement for companies based in Calgary, emphasizing the importance of face-to-face interaction.

- **Access to Infrastructure and Resources:** The combination of funds, expertise, and infrastructure is deemed essential, particularly for research-based companies that require lab access. Shared labs with support staff and bulk purchasing options (biobar suppliers program) make it affordable for fellows to continue their research and development activities. The availability of office and lab space within the hub is beneficial for fellows who are graduates and need these resources post-university.

In summary, valuable components include the program's support for transitioning from academia to business, with structured curriculum sessions, one-on-one coaching sessions, and clear deliverables helping fellows develop the skills needed to navigate the business environment. Respondents particularly highlighted the importance of building relationships and trust through in-person sessions, which provided a safe space for open discussion and fostered strong connections among founders. Additionally, mechanisms such as regular team check-ins with the program manager were noted for promoting accountability and social motivation, helping fellows stay on track with milestones and maintain momentum throughout the program.

3.2.2 Barriers and Challenges Faced by Program Fellows

Some program alumni faced challenges with the nature of virtual formatting of the curriculum, concerns with mismatched expert advisors, and logistical barriers with commuting.

The alumni fellows provide valuable insights into various aspects of the program that they felt did not fully meet their expectations. Key areas of concern included the expertise of the advisors, with some fellows feeling that the advisors lacked relevant startup experience. It is important to note that this feedback reflects alumni perspectives; since that time, the Expert Advisor Program has undergone significant changes to address the reported issues. The virtual format during the COVID-19 pandemic posed challenges, leading to feelings of isolation and reduced opportunities for meaningful interaction among fellows. Additionally, there were concerns about the lack of cohesion and group activities, which some felt limited the potential for collaboration and networking. Scheduling and time management issues were also noted, though adjustments were made to improve the experience. Lastly, the program structure did not align with some fellows' expectations for more robust cohort interactions and follow-up activities – a feedback that has also been addressed in the latest cohorts. A detailed analysis of results is as follows:

- **Expert Advisors:** One fellow expressed disappointment, noting that the advisors, who were presented as experts, did not meet their expectations. They felt that some advisors were too removed from the startup world, having backgrounds in corporate environments, and thus lacked an understanding of the unique challenges and priorities faced by startups. This fellow emphasized that the best advice often came from peers who were experiencing similar challenges, rather than from the designated experts. Another fellow mentioned that while some advisors were not the best match for them, they did not necessarily question the advisors' quality, suggesting a mismatch rather than a deficiency in expertise.
- **Virtual Format Challenges:** One fellow found the virtual setting difficult, particularly in terms of working with people they had never met in person, which led to feelings of isolation. Another fellow attributed the lack of cohesion among founders to the remote nature of the program, which was conducted during the COVID pandemic. This fellow noted that there

were fewer opportunities to get to know other founders or discuss challenges, despite attempts to facilitate such interactions. The virtual format, therefore, seemed to hinder the development of personal connections and collaborative discussions among fellows.

- **Cohesion and Group Activities:** One fellow mentioned a lack of cohesion among founders, which they attributed to the online format of the program during the COVID-19 pandemic. They felt there were limited opportunities to engage with other founders and discuss shared challenges. Another fellow expressed disappointment with the minimal group-based programming—including opportunities beyond formal training sessions—to build stronger peer relationships within the cohort.
- **Scheduling and Time Management:** One fellow initially faced challenges with the program's schedule, which involved sessions spread out over several days, leaving gap days in between. This was later adjusted to have sessions on consecutive days, which the fellow found more effective. Another fellow noted that the curriculum sessions were initially too long, taking up three full days of the work week and impacting their ability to complete other tasks. However, the program adapted by switching to half-day sessions, which the fellow appreciated as it allowed for better time management.
- **Expectations of Program Structure:** One fellow anticipated more activities involving their cohort and parallel cohorts, as well as an immediate follow-up cohort to facilitate ongoing interaction among more companies. They expressed disappointment with the limited group programming—referring to the broader mix of learning sessions, networking opportunities, and cohort-based activities—which they felt was a missed opportunity to enhance collaboration and peer learning. This feedback reflects experiences from earlier cohorts, particularly when much of the programming was delivered virtually. Since then, group programming has been strengthened in response to this type of feedback—Cohort 4 included more structured activities, and Cohort 5 is fully in-person with an updated curriculum. Despite these expectations not being met, the fellow noted that they were still able to make valuable connections with other companies and alumni.

Through the lens of program developers, notable challenges include financial constraints, limitations in scope, and application outreach challenges.

Through the lens of program developers, several notable challenges were identified, including financial constraints, limitations in scope, and difficulties in applicant outreach. Funding fluctuations led to a narrower program focus, reducing opportunities across some life sciences fields. The team also faced challenges in defining the program's scope and effectively marketing it to attract a diverse range of applicants, particularly from outside Alberta.

Visa and immigration requirements further constrained efforts to recruit and support international fellows. Restrictions related to work and residency eligibility limited the program's ability to admit qualified international candidates, while administrative processes for securing permits added complexity for both applicants and program staff. Additionally, managing and screening fellows proved resource-intensive, and developers noted the need for clearer post-program transition supports as teams graduated.

The results of these findings are summarized below.

- **Funding and Financial Constraints:** One respondent who was involved in the competition for the final cohort perceived the shift in funding from economic development sources to Alberta Innovates as constraining the range of ventures that could be supported. While multiple respondents noted that the Digital Health funding priority complicated decision-making, there were varying opinions on how influential it was on selection. Alberta Innovates indicated that it was open to supporting some exceptional applications outside its Digital Health priority area, provided the applicant met all published eligibility criteria and performed strongly across other evaluation dimensions. Another respondent noted that while the program connects teams with seed funding opportunities and other external resources, its direct capacity to support fundraising activities remains limited.
- **Focus and Scope Limitations:** One respondent expressed concern about a perceived lack of clarity regarding program focus, particularly the emphasis on health-related ventures compared to the broader life sciences sector. However, other perspectives and supporting documentation point to a range of factors that shaped these outcomes.

Early funding agreements reflected a co-funding model, whereby Innovate Calgary was expected to continue supporting fellows across the broader life sciences spectrum, while Alberta Innovates prioritized digital health but remained open to supporting other strong applications. In earlier cohorts, however, the pipeline of competitive applications across both streams was limited, even when a broader life sciences focus was advertised. As additional cohorts were added to fully allocate available funding, Innovate Calgary's matching contributions declined, resulting in Alberta Innovates becoming the primary funding source.

Respondents also noted that turnover among Steering Committee members and changes in governance continuity affected communication, expectations, and efforts to troubleshoot issues. Over the multiyear collaboration there were multiple changes in the individuals filling the seats for each organization on the Steering Committee. Meeting cadence also varied—intensive during the lead-up to Cohorts 3 and 4, and less frequent approaching Cohort 5 as competition materials and fellowship tracking processes had become well established. These dynamics contributed to differing perspectives on how best to utilize Alberta Innovates' funding – particularly in supporting Cohort 5, highlighting the importance of maintaining governance continuity and proactive communication as programs evolve.

Another respondent highlighted challenges related to defining and maintaining consistent eligibility criteria. While the program experimented with targeting different founder profiles over time, the original intent was to support early-stage ventures. From an accountability and audit perspective, Alberta Innovates emphasized the need to adhere strictly to the eligibility criteria published for each competition, which may have influenced perceptions about it being more rigid overall in the fellowship offers it supported with its funding contribution.

Marketing and Outreach Challenges: Some respondents perceived ongoing challenges in marketing and outreach, particularly in attracting applicants from outside Alberta and reaching postdoctoral researchers and recent graduates at scale. Respondents noted that resource and skill constraints limited the ability to sustain national-level marketing efforts, and that a range of strategies—including targeted LinkedIn outreach—were used with mixed results.

However, program documentation indicates that marketing intensity varied by cohort. Notably, for Cohort 4, the program benefited from a significant in-kind marketing campaign provided by Calgary Economic Development, valued at up to \$25,000, which contributed to increased visibility and resulted in at least one successful out-of-province applicant. This suggests that when dedicated marketing resources were available, outreach effectiveness improved.

Respondents also emphasized that recruitment challenges were influenced by structural program requirements. Fellowship recipients are required to be physically present in Calgary during the program, and selection processes assess the likelihood that ventures will maintain a meaningful local presence following the fellowship. These criteria, while aligned with local ecosystem development objectives, inherently limit the pool of eligible applicants from outside the region and shape the effectiveness of broader national outreach efforts.

Other areas mentioned as constraints included eligibility limitations related to visa and work permit requirements, which restricted the pool of potential applicants. As participation in the program requires that fellows be legally able to work in Canada for the full duration, the program does not provide visa or work permit support. Consequently, international candidates who did not meet this requirement were ineligible to apply. Fellow screening and management were also noted, as the program addressed issues such as founder disputes and varying levels of dedication, sometimes requiring the removal of fellows who were not demonstrating sufficient progress. Additionally, post-program support and graduation were highlighted, with respondents noting the importance of connecting alumni to additional resources and ecosystem partners to address challenges related to fundraising and scaling after program completion.

3.2.3 Suggestions & Areas of Improvement

Fellows of the program believe a more company-tailored curriculum would improve the program experience, along with a flexible funding structure and leveraging alumni as mentors.

Program alumni provided valuable insights into several key areas for enhancing the experience of future fellows. Fellows expressed a need for a more tailored and in-depth curriculum, with suggestions for deeper exploration of specific topics and better alignment with each company's stage of development.

Funding structure and flexibility were also identified as important areas for improvement. Fellows noted that current funding categories and disbursement schedules can be restrictive, limiting their ability to allocate resources based on evolving business priorities (e.g., shifting funds between technical development, marketing, or staffing needs). Several also expressed interest in continued financial or advisory support beyond the initial two-year period to sustain progress as ventures transition out of the program.

The involvement of alumni and mentors was highlighted as a crucial element for providing guidance and leveraging past experiences. Concerns about staffing and program management were also noted, emphasizing the importance of adequate resources and organization. Additionally, logistical challenges—particularly around workshop accessibility—were identified, with suggestions for offering virtual options to accommodate diverse fellow needs. A detailed breakdown of results is as follows:

- **Tailored-Curriculum and Experience:** One fellow suggested that while the curriculum was generally good, certain topics, such as intellectual property (IP), could benefit from deeper exploration. They also emphasized the importance of aligning the programming with the specific stage of the company, noting that financial topics, in addition to customer discovery, are crucial. Another respondent recommended that fellows engage with programs offered by Platform Calgary, such as the Discovery Program, to test their business ideas before joining the main program. There was also a point made about the lack of customization for different technologies, highlighting the need for differentiation based on the specific requirements of pharmaceuticals, medical devices, diagnostics, and digital health. This was addressed in the later cohorts by introducing workshops tailored to the specific needs of founders and companies, beyond the standard curriculum for all. Additionally, an intensive upfront boot camp was suggested as potentially more effective in getting fellows started, while another fellow noted the value of workshops but suggested offering virtual options to accommodate those who cannot attend in person.
- **Funding and Financial Flexibility:** One fellow mentioned the difficulty of managing finances on a reimbursement basis without access to external capital and suggested that an initial cash advance would help address early-stage liquidity challenges. While the program's funding model provides significant non-dilutive support, some fellows expressed that the timing of reimbursements and the two-year expenditure period did not always align with their company's growth trajectory, creating short-term cash flow and planning pressures. Although the LSF allows broad discretion in how funds are used—with the main restriction being on salaries for additional team members—some fellows nonetheless perceived limitations in how quickly or easily they could redirect funds to meet evolving operational needs. These perceptions suggest a potential opportunity to more clearly communicate allowable flexibilities and reimbursement processes at the outset. Several fellows also proposed introducing a follow-up funding mechanism or bridging program to sustain momentum after the initial two-year period, helping ventures manage the transition to post-program growth and external financing.
- **Alumni and Mentorship Involvement:** One fellow highlighted the value of connecting current fellows with alumni who have firsthand experience with fundraising and the challenges of entrepreneurship. They suggested that alumni who have been through the program, both successful and not, could provide valuable insights and guidance. Another respondent supported this idea, suggesting that past fellows could be brought back to support new cohorts, providing quick answers and guidance to fellows who have questions.
- **Program Duration and Continuity:** One fellow observed that the two-year timeline imposed by the program does not align well with the growth patterns of startups, which often experience periods of acceleration and slowdown. They suggested that the timeline should be more flexible to accommodate these variations. Another fellow mentioned that the two-year duration is insufficient for many life sciences companies to commercialize their technology or products. They proposed the introduction of a follow-up program or additional funding opportunities to support companies beyond the initial two years, which would help ease the transition and provide continued support for commercialization efforts.

Other areas of improvement include staffing and program management, with concerns raised about understaffing, overextended personnel, and the lack of timely replacement for key staff members, which affected the program's organization and delivery. Respondents emphasized the importance of having sufficient staff with appropriate skills to effectively coach fellows and manage program activities. These matters were addressed in the later cohorts, following staff changes, team restructuring and implementation of more robust and consistent procedures. Logistical challenges were also noted, particularly regarding workshop attendance, with suggestions to offer virtual options or provide recordings to improve accessibility for fellows who face difficulties commuting or attending in person.

Table 3: What recommendations do you have to improve the program experience for future fellows?

Program Improvement Recommendations	#	%
Tailored-Curriculum and Experience	5	71%
Funding and Financial Flexibility	4	57%
Alumni and Mentorship Involvement	2	29%
Program Duration and Continuity	2	29%
Staffing and Program Management	1	14%
Addressing Logistical Challenges	1	14%
Total Responding	7	100%

* Note: “#” and “%” represent the number and percentage of respondents who identified each area as an opportunity for program improvement. Because fellows could provide multiple recommendations, percentages do not sum to 100%.

Developers of the program highlight key areas such as stable routes of funding for program continuation and marketing and outreach as main areas of improvement.

Program developers highlight several important areas for improving the program. Stable funding and clear program duration are crucial for long-term planning and building effective teams. Better marketing and alignment with funder expectations can help attract fellows and reduce confusion. Incorporating diversity, equity, and inclusion early in the process can make the program more inclusive. Access to resources and infrastructure is a major benefit, providing unique opportunities for fellows. Lastly, gathering feedback and adjusting the curriculum ensures the program meets the diverse needs of its fellows. Results are as follows:

- **Funding and Financial Stability:** One respondent emphasizes the necessity of having a budget for program management and operations, noting that their hands are tied without it, and suggests that operational expenses funded by the province would be beneficial. Another discusses the challenges posed by the uncertainty of program funding, highlighting that funding groups often have money for only a couple of years, which complicates the process of building a team to deliver the program. A third underscores the importance of ongoing funding stability, stating that knowing the program has spots for a set number of companies each year allows for better resource planning and maintaining momentum.
- **Program Duration and Certainty:** The issue of program duration and certainty is highlighted by a respondent who points out the difficulties associated with uncertain program life. They explain that when funding is only available for a short period, such as two or three years, it becomes challenging to establish a team and deliver the program effectively. The suggestion is made that viewing these as pilot programs, gathering data, and considering them for more permanent implementation could provide more stability. This would allow for the involvement of more channel partners, the development of a better team, and stronger relationships with follow-on resources like investors.
- **Marketing and Promotion:** One fellow noted that improved marketing and broader promotion of the program are always beneficial, particularly given the requirement for participating companies to relocate to Calgary—something not all founders are able or willing to do. Another fellow referenced early challenges around clearly communicating the program's focus areas, noting that the name *Life Sciences Fellowship* could create confusion when funders prioritized digital health ventures. However, this feedback appears to reflect experiences from earlier cohorts, as recent marketing materials and recruitment processes now clearly articulate the program's digital health emphasis and eligibility requirements.

Developers highlight other areas of improvement which include enhancing diversity, equity, and inclusion (DEI) by incorporating a DEI matrix earlier in the assessment process, as one respondent noted the absence of DEI considerations in the evaluation grid during their stage. Access to resources and infrastructure was highlighted as a significant advantage, with respondents emphasizing the value of in-person access to labs and equipment, though continued attention to maintaining and communicating this benefit is important. Additionally, ongoing curriculum development and responsiveness to fellow feedback were mentioned, with efforts to adjust curriculum and workshop schedules based on founder input, while recognizing the challenge of meeting the diverse needs of all participating companies.

Stakeholders and ecosystem partners believe strategic expansion through collaboration, eligibility requirements, and sustainable funding sources are key improvement areas.

Ecosystem members provide relevant insights into enhancing the program's value and sustainability through strategic expansion, refined focus, and improved communication. Key recommendations include broadening partnerships beyond the University of Calgary to foster collaboration across the ecosystem and revisiting eligibility criteria to encompass a wider range of potential commercialized projects. Addressing funding challenges through sustainable avenues and encouraging successful fellows to contribute back to the ecosystem are also emphasized. Effective communication and storytelling are crucial for raising awareness and attracting new fellows, while developing a robust

talent pipeline and fostering alumni mentorship and peer support are vital for long-term success. Additionally, benchmarking against other programs and seeking recognition from external bodies can further strengthen the program's credibility and impact. A breakdown of results are as follows:

- **Expansion and Collaboration:** The responses indicate a need for the program to expand its reach beyond the University of Calgary. One suggestion is to partner with other universities to attract more researchers and aid in the commercialization of their technologies. This expansion is seen as a way to enhance the program's sustainability. Additionally, there is a call for better integration within the Calgary ecosystem, which is currently described as siloed.
- **Eligibility and Focus Areas:** Respondents highlighted ongoing challenges related to program eligibility criteria and focus areas. Early reliance on the date of incorporation as a primary eligibility measure was identified as insufficient, as it did not consistently reflect venture readiness or commercialization stage. Over time, respondents noted the need for more nuanced criteria that better capture founder commitment, product maturity, and market readiness.

Concerns were also raised regarding perceived narrowing of focus toward digital health in later cohorts. However, respondents emphasized that this issue is best understood as an ongoing governance and process challenge rather than a single programmatic shift. Changes in funding composition, coupled with inconsistent Steering Committee engagement during some competition cycles, limited opportunities to collectively reassess eligibility thresholds and focus areas in real time.

Respondents stressed that active Steering Committee involvement throughout each competition cycle, combined with structured post-competition debriefs, is essential to resolving these issues. Such mechanisms support shared interpretation of eligibility criteria, enable timely course correction, and help ensure that commercially promising projects—across life sciences domains—are considered within the constraints of available funding.

Finally, respondents noted the importance of systematic documentation and knowledge management. Turnover among program staff and funder representatives increased the risk that lessons learned from earlier cohorts were not consistently carried forward. Improved document management and centralized storage of competition materials, decisions, and debrief notes were identified as critical to maintaining continuity and supporting transparent, defensible decision-making over time.

- **Funding and Sustainability:** Funding was identified as a critical challenge for the program's long-term sustainability. Fellows suggested exploring additional or diversified funding avenues—such as partnerships, sponsorships, or service-based revenue models—to reduce reliance on a single funding source. This reflects a broader challenge faced by similar programs seeking to balance accessibility for fellows with financial sustainability over time. The idea of successful fellows giving back to the ecosystem is proposed as a way to enhance sustainability. This could involve successful companies contributing resources or expertise to support the program. Program developers also noted that the limited pipeline of qualified applicants in Alberta's life sciences and digital health sectors poses a challenge for long-term sustainability. A smaller pool of potential fellows can make it more difficult to demonstrate ongoing demand, attract new funders, and justify future program investment. Strengthening

this talent pipeline—through outreach, early-stage training, and partnerships with universities or accelerators—could therefore support both program impact and funding stability.

Other areas of improvement include strengthening communication and awareness about the program, as respondents noted the need for clearer messaging regarding program conditions, eligibility, and ongoing funding to prevent misconceptions and broaden participation. There is also a call for increased storytelling and publicity to highlight program successes and attract more ventures. Talent development and support were identified as important, with respondents emphasizing the value of building a talent pipeline for key roles, such as product managers, and fostering mentorship and peer support networks where fellows can share challenges openly. Additionally, benchmarking the program against similar initiatives and seeking recognition from external judging bodies were suggested as ways to enhance credibility, identify best practices, and further improve program outcomes.

3.2.4 Overall Needs Met

Program alumni reported that their key objectives were largely achieved through participation in the program, including establishing their companies, securing funding, advancing product development toward commercialization, and effectively leveraging available program supports.

The responses provide a comprehensive overview of fellows' experiences and objectives within the program, highlighting key areas such as company establishment, investment, product development, and program support. Fellows aimed to lay the groundwork for their companies, secure necessary funding, and develop innovative products, reflecting the multifaceted nature of startup growth. The program's structured support—particularly through coaching provided by the program manager and access to expert advisors—was instrumental in guiding fellows through the complexities of building and commercializing their ventures. The results are as follows:

- **Company Establishment and Development:** One individual aimed to transition intellectual property created at the university into a company, laying the groundwork to attract investment for further innovation. Another expressed a desire to create a company and develop a device for clinical trials, indicating an initial step towards company formation. A third fellow mentioned applying to the program when their company was only a few months old, with goals to establish the company, build a prototype, and secure funding.
- **Investment and Funding:** One fellow's primary objective was to attract investment to build an investable company, which they successfully achieved. Another sought to secure initial rounds of venture funding as part of their company's early development. These responses indicate that securing financial backing was a critical component of their strategic goals within the program.
- **Product Development and Commercialization:** One individual aimed to create the best device for clinical trials, reflecting a focus on product quality and readiness for market entry. Another sought a commercialization pathway for their technology, although they noted that their expectations were not fully met due to external circumstances. A third fellow initially planned to outsource their technology but decided to build their own platform, which they found more valuable.

- **Program Support and Guidance:** One fellow sought help with strategy development, understanding how to build a high-tech startup, and running a company, and found the program's advisory beneficial. Another highlighted the workshops' usefulness, particularly in regulatory and business planning aspects, which aided their decision to build their own platform. A third credited the program's support as instrumental in their success, particularly in product development and commercialization.

3.3 Ecosystem Contribution

- What role does the program play in supporting commercialization?
- How does it compare to similar programs?
- What gaps or needs does it fill?
- How might it evolve to stay relevant?

3.3.1 Role of the LSF in Commercialization Support

Ecosystem members and stakeholders describe the role of the LSF in early-stage business support, continued encouragement of entrepreneurship, and the delivery of specialized support and resources for fellows to excel in the life sciences landscape.

According to notable members of the ecosystem, the program plays a pivotal role in Alberta's life sciences and digital health innovation landscape by providing comprehensive support to early-stage startups, particularly those affiliated with the University of Calgary. It encourages entrepreneurship by offering a pathway for individuals with intellectual property or workable projects to explore the startup route. The program is distinguished by its provision of specialized resources and support, which are crucial for scaling products and prototyping in niche fields like med tech. Financial backing is another cornerstone, offering essential funding to help startups progress to the next stage of development. Additionally, the program provides advisory and tailored guidance, aiding individuals in transitioning from academic researchers to successful entrepreneurs. A detailed breakdown of results are as follows:

- **Early-Stage Support and Commercialization:** The program plays a crucial role in supporting early-stage startups, particularly those associated with the University of Calgary. Respondents highlight its importance in helping researchers commercialize their products. This support is vital for startups in the initial phases of development, where resources and guidance are often limited. The program provides the necessary backing to help these early-stage ventures move forward and reach the next stage of development.
- **Encouragement of Entrepreneurship:** The program is noted for its role in encouraging individuals to pursue entrepreneurship, especially those with IP or workable projects. It provides a pathway for those interested in entrepreneurship but unsure of where to begin. By offering support and resources, the program helps individuals explore the startup route, fostering a culture of innovation and business development. This encouragement is particularly beneficial for those transitioning from academic or research backgrounds into the entrepreneurial world.

- **Specialized Support and Resources:** Specialized support and resources are a significant aspect of the program, as highlighted by respondents. The program offers unique resources that are not readily available elsewhere, particularly for scaling products and prototyping, such as in the med tech field. This specialized assistance is crucial for startups and entrepreneurs who require domain-specific support to achieve their business goals.

Stakeholders consistently emphasized the collective value of the LSF's integrated supports—combining funding, coaching, and access to expert advisors. Fellows placed particular emphasis on the financial support as a catalyst for advancing their ventures, while also highlighting the value of targeted guidance in transitioning from researcher to entrepreneur. This combination of financial and advisory supports was viewed as especially effective in helping founders navigate commercialization beyond the university environment.

Program alumni highlight the LSF plays a key role in company creation and growth, career development from academia to entrepreneurship, and critical funding support.

The program has had a multifaceted impact on fellows, serving as a catalyst for company formation and growth while facilitating significant career transitions and development. It has provided essential funding and financial support, although some fellows faced challenges with fund allocation and timeline constraints. The program has also offered invaluable educational and learning opportunities, equipping fellows with critical skills for business development. In terms of research and development, the program has enabled technological advancements and innovations. Networking and exposure have been enhanced, allowing fellows to build valuable connections across Canada. Additionally, the program has supported fellows in achieving regulatory and quality management milestones, ensuring compliance and product reliability. See below for a detailed description of various supports of this program fellows experienced:

- **Catalyst for Company Formation and Growth:** One respondent described the funding as "life changing," indicating that it was the catalyst for starting their company and gaining credibility with investors and stakeholders. Another respondent mentioned that the program allowed them to organize, raise funding, and launch a company, even though the company ultimately was not successful. The program provided stability, confidence, and traction, as noted by a respondent who highlighted the support from a large non-governmental organization.
- **Career Transition and Development:** One respondent expressed satisfaction with moving from academia to entrepreneurship, a transition made possible by the program. Another respondent likened the program to a quasi-postdoctoral fellowship, as it supported their career development immediately after completing a PhD. This suggests that the program has provided a platform for individuals to explore new career paths and gain valuable experience.
- **Funding and Financial Support:** One respondent credited the program's funding as essential for starting their company, highlighting its transformative impact. However, another respondent pointed out challenges with fund allocation, noting restrictions on how funds could be used. Despite these challenges, another fellow reported securing significant investor financing and grant funding, demonstrating the program's role in facilitating financial growth.

- **Educational and Learning Opportunities:** One respondent described the experience as "incredible," noting that it offered educational experiences and work opportunities. Another fellow highlighted the program's role in helping them understand intellectual property agreements and attract talent, which are crucial skills for business development. The program has also taught fellows how to stretch funding effectively.
- **Research and Development:** One respondent mentioned that without the program, their creations would not exist, indicating a shift from research to execution. Another fellow detailed the development of a specialized Electronic Medical Records (EMR) system, showcasing the program's role in advancing technological capabilities. Additionally, a respondent reported building prototypes, filing a patent application, and progressing in technology, all facilitated by the program.

Other areas the program played a role in include facilitating networking and exposure, with fellows gaining valuable contacts across Canada and access to partners in multiple major cities, thereby expanding their business reach and collaborative opportunities. The program also supported regulatory and quality management achievements, assisting fellows in implementing quality management systems, obtaining certifications such as ISO 13485, and meeting regulatory requirements from bodies like Health Canada and APEGA. Additionally, some fellows encountered challenges with fund allocation and timeline constraints, noting that restrictions on grant usage and the requirement to complete activities within a set period could limit flexibility for startups experiencing variable growth rates.

Fellows note tangible outcomes from their participation include a growing team of interns and employees, amount of funding secured, and various types of product development.

Program alumni provide a comprehensive overview of the tangible outcomes achieved by fellows, highlighting key areas of growth and development. Team expansion and strategic hiring have been pivotal, with several respondents reporting significant increases in their workforce, including specialized roles and interns. Securing funding has been a critical focus, with fellows successfully obtaining substantial financial resources through various channels, although some faced challenges in sustaining operations due to funding constraints. Product development and launch efforts are evident, with respondents achieving milestones such as product testing, software launches, and patent filings. Additionally, partnerships and collaborations have played a crucial role in facilitating product distribution and commercialization. Despite these achievements, some fellows encountered setbacks, underscoring the challenges inherent in the entrepreneurial journey. The results are detailed as follows:

- **Team Growth and Hiring:** One respondent mentions expanding their team to include additional members and a Mitacs scholar, indicating a focus on building a robust workforce. Another respondent highlights the strategic hiring of interns, starting with two and later adding a third, which suggests leveraging additional manpower effectively. There is also mention of having about four interns at the busiest time, reflecting a reliance on interns to support operations. Another response describes employing about eight full-time staff, along with co-op and intern students, showcasing a substantial team expansion. Additionally, there is a report of hiring seven care providers, including specialized roles such as a nurse practitioner and clinicians, indicating a diverse team composition. One respondent shares that

they hired their first full-time employee (not a founder) and now have multiple full-time and part-time employees, demonstrating workforce growth. Lastly, bringing on additional design surgeons as technical leads emphasizes the importance of specialized expertise in the team.

- **Funding Secured:** Securing funding emerges as a critical aspect across the responses. One respondent reports raising a significant amount in addition to non-dilutive funding, highlighting success in obtaining financial resources. Another emphasizes the importance of accessing more money during the program, which enabled the hiring of interns and leveraging funds for other purposes. There is mention of securing some funding, although it was insufficient to sustain operations, ultimately leading to the company's closure. Another response details successfully raising significant amounts in both dilutive and non-dilutive financing, providing important financial backing. There is also mention of holding off on funding until product launch but starting conversations with investors, indicating a strategic approach to securing investment. Additionally, one respondent details securing grant financing and raising equity and debt financing, showcasing a diverse funding strategy. Another reports securing investor financing and an equivalent amount in grant funding, demonstrating the ability to attract both investor and grant support.
- **Product Development and Launch:** One respondent discusses creating a new device that was tested in clinics and trials, indicating progress in product development. There is mention of efforts to bring a product into clinical studies, although challenges in securing sufficient funding were faced. Another response highlights the successful launch of different tiers of software for simulating surgery, demonstrating the ability to bring a product to market. Additionally, there is mention of holding off on funding until product launch to gain early customer traction, suggesting a strategic approach to market entry.

Other areas of tangible outcomes include the development of partnerships and collaborations, as fellows engaged with potential distributors and commercialization partners to advance product distribution and market entry, demonstrating the strategic use of external expertise and resources. Additionally, challenges and setbacks were noted, such as the closure of a company due to insufficient funding despite efforts to progress to clinical studies, underscoring the financial hurdles that can impact business sustainability. The practice of reporting outcomes to the LSIH, where all LSF companies are incubated, also reflects a commitment to transparency and accountability within the program.

3.3.2 Comparison of Similar Programs

Ecosystem members highlight the similarities in advisory and workshop opportunities; however, the funding and financial support is a significant differentiator of the LSF.

Prominent stakeholders and ecosystem members collectively highlight several key aspects of the LSF, particularly in comparison to other initiatives like the CDL and Applied Pharmaceutical Innovation (API). A common thread among these programs is the provision of advisory and workshops focused on raising capital. Advisory is emphasized as a foundational component, supporting fellows in their entrepreneurial journeys. CDL is specifically noted for providing "mentorship-type support," underscoring the importance of guidance and learning opportunities within these initiatives.

Funding and financial support emerge as significant differentiators for the LSF. Respondents highlight the program's grant funding and the provision of incubation space, which set it apart from other initiatives such as CDL and API. The GreenSTEM program, which previously offered salary support and business development funding, is mentioned as a precursor to the LSF, indicating a continuity of financial support for fellows. The LSF is noted for providing the "biggest chunk" of funding compared to other programs, underscoring its substantial financial backing.

The LSF also distinguishes itself through its focus on targeting postdocs or individuals transitioning out of academia, rather than those already holding academic positions. This focus on early-stage fellows contrasts with CDL, which typically engages with companies at a later stage of development. The LSF is designed to support ventures in their nascent stages, taking them at a much earlier moment than CDL, which usually starts at Technology Readiness Level (TRL) 4, with a sweet spot at TRL 5 to 7.

Differences in program focus and industry specialization further highlight the unique position of the LSF. CDL-Rockies is noted for its emphasis on energy and AgTech, with less focus on life sciences, which the LSF aims to supplement. This differentiation in focus suggests that the LSF fills a niche by concentrating on health and life sciences, areas that may not be as prominently addressed by other programs. Additionally, the LSF's ability to attract startups from across Canada, not just Calgary, is attributed to its workspace and mentorship offerings.

Program developers note key differentiators being the offering of non-dilutive funding, the program structure and landscape, and the nature of a competitive selection process.

The LSF is a standout program in the province, offering unique benefits to startups. It provides significant non-dilutive funding and a two-year, full-time structure that supports deep technology development and company growth. The program is highly competitive, selecting only the most promising startups for its personalized approach. It works well with other initiatives like CDL, allowing startups to transition smoothly and maximize their growth opportunities.

3.3.3 Gaps and Needs Filled by the LSF

Program developers mention some of the biggest needs and gaps filled by this program include the transition from research to market readiness services, access to financial support and capital, as well as specialized guidance and advisory by sector experts.

The LSF is designed to tackle key challenges in the innovation ecosystem, such as moving from research to market readiness, securing funding, and providing strong advisory and coaching. It helps researchers develop a business mindset and accelerates product development. By offering early-stage risk capital, the program supports companies in a stage where funding is scarce and maintaining equity is critical. Fellows benefit from structured workshops and expert advice, ensuring they have the guidance needed to succeed. Building a sense of community is also a focus, with in-person sessions fostering strong relationships.

- **Gap between Research and Market Readiness:** Fellows face difficulties in transitioning from conducting research to being prepared for market entry. The program is specifically designed to address this issue by accelerating product development and facilitating customer discovery. A crucial aspect of this transition is shifting the mindset from being research-focused to adopting a business-oriented approach. This shift is essential not only

for the success of current ventures but also for equipping researchers with the necessary business acumen for future endeavors.

- **Funding and Capital Access:** Raising capital is particularly difficult in the life sciences sector in Alberta, where risk capital is limited. The program aims to fill this gap by providing early-stage risk capital, offering a \$200,000 non-dilutive investment that gives companies a two-year runway to develop their technology and generate data. This financial support is intended to make these companies more attractive to venture capitalists. Without such support, founders would face the challenge and risk of self-funding their ventures.
- **Coaching and Expert Guidance:** The program includes a comprehensive advisory and coaching component to address gaps in expertise and guidance for early-stage companies. It features a structured curriculum with over 20 workshops in the first year, held monthly, to provide foundational knowledge and skills. Additionally, the program offers expert advisor support, giving teams access to over 100 industry experts for up to 200 hours of one-on-one guidance over two years. This guidance covers niche areas such as regulatory pathways for medical devices or pharmaceutical supply chain. The coaching structure is designed to be high-intensity, with multiple touchpoints to ensure continuous support and progress.

Other gaps and needs filled by the LSF include community building and networking, with cohort-based training and monthly workshops designed to foster professional development, peer-to-peer connections, encourage sharing of experiences, and build trust among fellows through in-person sessions. The LSF structure and support are also notable, as the combination of non-dilutive funding, workshops, expert advisor access, and infrastructure provides comprehensive and continuous assistance to early-stage companies, with tailored workshops and regular check-ins extending into the second year. Additionally, the program addresses geographical and location-based considerations by requiring first-year fellows to be based in Calgary for in-person workshops, while also offering flexibility through online meetings and remote advisor sessions to accommodate broader participation.

Ecosystem members also highlight the significance of having access to lab space and related resources that provide a dedicated area for their work, with the inclusion of necessary instruments, machines, and other lab equipment. For startup founders, prototyping solutions can be difficult to come across, so this can be a vital component when developing specialized technologies and services that require such access to resources.

Non-fellows of the program mention struggle they faced during their commercialization journey and mostly discussed the gap in raising capital, receiving business strategy advice, and executing business ideas.

Shortlisted non-fellows indicate several key areas where additional support could have enhanced their commercialization journey. One significant area is the need for business strategy advice, particularly in developing a go-to-market strategy. Respondents noted that while there is often a strong focus on the technology itself, understanding its market needs is crucial. They suggest that having structured business strategy support from the outset would help in effectively scoping and guiding the commercialization process. Additionally, the importance of marketing and customer discovery is emphasized. Respondents learned that having a good idea is only part of the equation, and understanding the market and customer needs is equally important. This realization points to a

potential gap in knowledge or training for individuals who may not initially be aware of these critical business components.

Non-fellows emphasized the importance of mentorship in the commercialization process, noting that access to experienced guidance is essential for building understanding of the business aspects required for startup success. Their feedback reflects broader insights about the needs of researchers and technical founders entering entrepreneurship, rather than direct commentary on the LSF. Moreover, respondents expressed a strong desire for specific and targeted mentorship—particularly for individuals with non-business backgrounds who face unique challenges related to intellectual property, regulatory processes, customer discovery, and marketing. These perspectives highlight the importance of integrating tailored business support and education into programs that help founders transition from academic or technical expertise to entrepreneurship and commercialization.

3.3.4 Program Rationale and Strategic Positioning

The LSF has been purposefully designed to strengthen Alberta's entrepreneurial ecosystem by investing in founder development, supporting early-stage ventures, and contributing to broader economic growth.

The LSF is strategically designed to foster a robust entrepreneurial ecosystem by addressing several critical areas. It emphasizes the experiential professional development of founders and emerging entrepreneurs, equipping them with the skills necessary to lead successful ventures, particularly in the life sciences and technology sectors. A key rationale for the program's development was to build business talent in Alberta by supporting researchers who aspire to become founders, providing them with structured opportunities to gain hands-on entrepreneurial experience. By supporting start-ups at early critical stages, the program aids in their transition from academic projects to market-ready businesses, contributing to economic development and job creation. Accessibility is an important consideration, as the program seeks to attract a wide range of researchers and innovators. Its financial and infrastructure supports empower entrepreneurs by providing the resources needed to innovate and grow.

- **Professional and Talent Development:** The LSF places significant emphasis on the professional development of founders, ensuring they are equipped with the necessary skills to lead their ventures. One of the program's primary goals is to develop the next generation of executives and innovation leaders in Alberta's life sciences sector by investing in people as much as in ideas. Workshops covering various aspects of business development—such as grant writing, customer discovery, and investment readiness—are integral to building entrepreneurial capacity. This deliberate focus on talent development means that, even if individual ventures do not succeed, fellows emerge with transferable skills, business acumen, and networks that enable them to contribute to the broader provincial innovation ecosystem.
- **Support for Start-ups and Entrepreneurs:** The LSF supports research and technical talent by helping their ventures transition from technical prototypes to market-ready businesses. The program is best suited for early-stage startups with technology-driven solutions to important problems, developing technologies at TRL levels 4 to 6. Through funding, infrastructure, and professional development, the program enables founders to achieve product-market fit and

build viable companies. The LSF supports research and technical talent by helping their ventures transition from technology-driven projects to market-ready businesses. Through funding, infrastructure, and professional development, the program enables founders to achieve product-market fit and build viable companies. While the program originated through Innovate Calgary and has had strong recruitment ties to the University of Calgary, participation has always been open to researchers and ventures from other institutions. This support is not limited to university-affiliated start-ups but extends to early-stage ventures with technology innovations.

- **Economic Development and Job Creation:** The LSF contributes to economic development through job creation, suggesting that the program's activities are not only aimed at supporting individual entrepreneurs and start-ups but also at contributing to the broader economic landscape. By developing start-ups and preparing them for market entry, the LSF indirectly supports job creation, which is a critical aspect of economic growth.

4. RECOMMENDATIONS

The evaluation of the Life Sciences Fellowship (LSF) program highlights its significant contributions to advancing life sciences and digital health entrepreneurship in Alberta, while also identifying areas where targeted refinements could further enhance program effectiveness, consistency, and long-term sustainability. The following recommendations are derived from fellow feedback, ecosystem perspectives, and analysis of program data, and are intended to support continuous improvement rather than fundamental redesign.

Context for Recommendations

Feedback from fellows and other stakeholders highlighted several areas for potential improvement. Some of these—such as expanding the advisory pool and leveraging alumni networks—have already been addressed through recent program enhancements. The LSF team has broadened its roster of expert advisors to cover a wider range of commercialization domains and implemented a more structured matching process to align advisors with company needs. Similarly, new mechanisms have been introduced to engage alumni as peer supporters, allowing current fellows to benefit from the insights and lived experiences of previous cohorts.

The recommendations that follow therefore focus on forward-looking opportunities to strengthen program delivery, governance, and impact, building on progress already achieved and addressing areas where incremental refinements could yield meaningful returns.

4.1 Strengthen Program Content and Delivery

Rationale: Fellows enter the program at varying stages of readiness, with differing operational pressures and learning needs. Greater alignment between program content, delivery format, and company stage can improve relevance, engagement, and application of learning.

Anticipated impact: Improved founder satisfaction, stronger uptake of program content, and more efficient use of fellows' time.

- **Tailor Curriculum to Company Stage:** Adapt workshops and training to reflect the varying developmental stages of participating startups. Consider a modular curriculum or an intensive boot camp at program entry to better align content with immediate company needs.
- **Enhance Flexibility in Delivery:** Continue to refine the balance between in-person and virtual sessions. Offer recorded workshops or asynchronous resources to improve accessibility for fellows facing scheduling or location constraints.

4.2 Improve Financial and Structural Supports

Rationale: Financial structures influence founders' ability to fully engage in the program and deploy resources strategically. Increased flexibility and reduced administrative burden can help mitigate cash-flow pressures common to early-stage ventures.

Anticipated impact: Reduced financial strain on fellows, improved retention and engagement, and greater alignment between funding mechanisms and venture realities.

- **Increase Flexibility in Funding Allocation:** Explore options to allow fellows more discretion in how funds are deployed (e.g., salaries versus company expenses), recognizing the varied financial needs of startups.
- **Support Beyond Two Years:** Consider developing an extension program or follow-up grant to assist companies that require additional runway to achieve key commercialization milestones.
- **Streamline Reimbursement Processes:** Address challenges associated with reimbursement-based funding models by introducing mechanisms for upfront payments or milestone-based advances.

4.3 Enhance Ecosystem Integration

Rationale: Strong ecosystem connectivity amplifies program impact by extending fellows' access to talent, infrastructure, and follow-on opportunities beyond the Fellowship itself.

Anticipated impact: Stronger pipelines of applicants, clearer post-program pathways, and increased visibility of the LSF within Alberta's innovation ecosystem.

- **Broaden Collaboration Across Institutions:** Expand partnerships beyond the University of Calgary to engage other academic and research institutions, strengthening province-wide access and participation.
- **Promote Ecosystem Awareness:** Improve outreach and storytelling to highlight program successes, attract diverse applicants, and reinforce the LSF's positioning as a flagship entrepreneurial initiative in Alberta.

4.4 Ensure Long-Term Sustainability

Rationale: Program stability is closely tied to predictable funding and diversified revenue streams. Proactive planning can reduce operational uncertainty and support strategic growth.

Anticipated impact: Greater continuity in program delivery, improved planning horizons, and reduced reliance on single funding sources.

- **Stabilize Core Funding:** Work with funders to establish more predictable, multi-year commitments, enabling strategic planning and long-term program investment.
- **Diversify Funding Sources:** Explore opportunities for cost-sharing, sponsorships, and corporate partnerships to complement government funding.
- **Embed Diversity, Equity, and Inclusion (DEI):** Integrate DEI considerations into recruitment, curriculum, and evaluation processes to support equitable access and reflect the diversity of Alberta's innovation community.

4.5 Strengthen Program Management and Capacity

Rationale: Effective program delivery depends on adequate staffing, clear processes, and structured feedback loops that support learning and adaptation.

Anticipated impact: Increased operational resilience, improved founder experience, and stronger use of evidence for decision-making.

- **Address Staffing and Resource Constraints:** Ensure adequate staffing levels and timely replacement of key roles to maintain consistency in program delivery and fellow support.
- **Enhance Cohort Engagement:** Increase structured opportunities for peer-to-peer learning and networking within and across cohorts to strengthen founder communities.
- **Monitor and Adapt Continuously:** Continue strengthening existing feedback mechanisms by systematically reviewing insights from workshops and quarterly venture development check-ins and using them to inform program adjustments.

Thank you!