City of Kingston
Report to Council
Report Number 26-064

To:	**Mayor and Members of Council**
From:	**Craig Desjardins, Director, Office of Strategy, Innovation & Partnerships**
Resource Staff:	**Brandon Forrest, Director, Business, Real Estate & Environment**
Date of Meeting:	**February 17, 2026**
Subject:	**Wet Lab Development Project**

Council Strategic Plan Alignment:

Theme: 5. Drive Inclusive Economic Growth

Goal: 5.3 Diversify Kingston's economic base.

Executive Summary:

The purpose of this report is to seek Council approval for a municipal capital investment of $3.0 million from existing employment land works-in-process to support the development of Tri-Colour Labs, a shared, industry-focused wet lab and biomanufacturing facility. Funds originally intended for employment land acquisition are being closed to offset the new investment. The proposed investment is intended to address a documented gap in Kingston's life sciences innovation ecosystem by enabling early-stage and scaling companies to access compliant laboratory infrastructure required for validation, commercialization, and early production activities.

Wet lab capacity has emerged as a critical constraint on life sciences company growth across Ontario and Canada. In Kingston, this constraint is already resulting in lost retention and attraction opportunities, as companies are unable to secure suitable space locally once they reach commercialization milestones. Over the past 24 months, more than 23,500 square feet of wet lab space has been actively sought by homegrown firms and foreign direct investment prospects, far exceeding available capacity. Without intervention, companies are compelled to

relocate to larger centres, resulting in the loss of high-value jobs, talent, and downstream economic benefits.

Tri-Colour Labs is designed as a 10,000 square foot modular Biosafety Lab (BSL)-2 wet lab facility within Botterell Hall at Queen's University, supported by access to shared equipment, office and collaboration space, and Good Manufacturing Practice (GMP) adjacent capabilities. The facility is designed to support companies operating at commercialization-stage technology readiness levels, providing flexible, right-sized space that allows firms to scale incrementally while remaining in Kingston. This project is economic development infrastructure complementing existing assets such as Providence Care, Kingston Health Sciences Centre, the Helix Program, and the RXN Reaction Hub.

The total estimated project cost is approximately $10.7 million, funded through a stacked investment model that includes $3.2 million from higher levels of government, up to $3.0 million from the City of Kingston, and approximately $4.5 million from Queen's University in capital, in-kind contributions, and long-term operational support. Municipal funding is strictly limited to eligible capital and equipment costs. The City will not be responsible for operating, maintenance, or lifecycle costs, which will be assumed by Queen's University.

The revenue and operating model is conservative and market-aligned. Revenues are generated through lease payments for lab space and fee-for-service access to shared equipment and services. Based on documented demand and benchmarking against comparable facilities, occupancy is conservatively projected to reach 60 percent in year one, 75 percent in year two, and stabilize at approximately 90 percent by year three, supporting operational breakeven within two to three years.

Governance and risk mitigation measures reflect best practices established through prior Council-approved investments including RXN Reaction Hub. Queen's University will own and operate the facility, Kingston Economic Development Corporation will provide non-profit oversight and performance monitoring and firm attraction to the facility, and the City will participate as a strategic funder with defined reporting and governance rights. Municipal funds will be released on a claim-based, milestone-driven basis tied to confirmed matching contributions and construction progress.

The Tri-Colour Labs investment is expected to deliver measurable economic outcomes by enabling life sciences companies to commercialize and scale within Kingston rather than relocate due to infrastructure constraints. Based on comparable facilities and conservative assumptions, the project is expected to support approximately 40 to 60 direct high-value jobs within the first five years, with an additional 30 to 50 indirect jobs generated through professional services, equipment supply, and specialized trades. By supporting five to ten tenant companies at any given time, Tri-Colour Labs will improve firm retention, attract new investment, strengthen the survival and scale-up of university spin-outs, and generate broader spillover benefits across the local economy.

Approval of this investment at this time is critical to leveraging other levels of government funding. Tri-Colour Labs represents a targeted, time-limited capital investment that addresses a clear market failure, strengthens Kingston's life sciences ecosystem, supports high-value job

creation, and protects municipal interests through capped financial exposure and strong governance.

Recommendation:

That Council approve the reallocation of $3,000,000 from the employment land acquisition budget, and the reallocation of the funding source from the Industrial Land Reserve Fund to the Municipal Capital Reserve Fund, to support the development of Tri-Colour Labs, a shared, industry-ready wet lab and biomanufacturing facility located at Botterell Hall, Queen's University, subject to the following conditions:

1. Confirmation and retention of higher-level government funding, including compliance with all associated timelines and eligibility requirements;
2. Finalization of a governance and oversight model that provides for City participation in advisory and reporting structures, ensures transparency and accountability, and protects municipal interests;
3. Execution of funding, governance, and collaboration agreements between the City of Kingston, Kingston Economic Development Corporation, and Queen's University, in a form satisfactory to the Director of Legal Services and Chief Financial Officer;
4. Restriction of the City's contribution to eligible capital and equipment costs only, with no municipal responsibility for operating, maintenance, or lifecycle costs; and
5. Structuring of funding disbursement on a claim-based basis tied to confirmed matching contributions, construction progress, and reporting requirements; and

That Council authorizes the Mayor and Clerk to execute all necessary agreements to give effect to this approval to support the development of Tri-Colour Labs.

Authorizing Signatures:

ORIGINAL SIGNED BY DIRECTOR

Craig Desjardins, Director, Office of Strategy, Innovation & Partnerships

ORIGINAL SIGNED BY CHIEF ADMINISTRATIVE OFFICER

Lanie Hurdle, Chief Administrative Officer

Consultation with the following Members of the Corporate Management Team:

Paige Agnew, Commissioner, Growth & Development Services	☑
Jennifer Campbell, Commissioner, Community Services	Not required
Neil Carbone, Commissioner, Corporate & Emergency Services	Not required
David Fell, President & CEO, Utilities Kingston	Not required
Desirée Kennedy, Chief Financial Officer & City Treasurer	☑
Jenna Morley, City Solicitor	Not required
Ian Semple, Commissioner, Transportation & Infrastructure Services	Not required

Options/Discussion:

Background

Wet labs, short for "wet laboratories", are specialized facilities equipped for handling chemicals, biological materials, and other liquids essential for experimental research in health innovation and biotechnology. These labs provide the controlled environments, ventilation systems, and infrastructure (e.g., fume hoods, autoclaves, biosafety cabinets, clean water, and waste systems) necessary for work such as genetic sequencing, drug development, diagnostics, and biomedical engineering. Wet labs are crucial for translating scientific discovery into commercially viable products and services.

In the broader health and life sciences ecosystem, wet labs serve as foundational infrastructure for startup incubation, university-industry collaboration, and the scale-up of biotech ventures. Their presence enables early-stage companies to conduct critical research and development and prototype testing, which attracts venture capital, talent, and strategic partnerships. For a mid-sized city like Kingston, which boasts key research anchors like Queen’s University, Kingston Health Sciences Centre, and St. Lawrence College, wet lab capacity can significantly elevate the region’s profile as a destination for health innovation investment.

By offering space for spinouts, startups, and partnerships with large pharmaceutical or med-tech firms, wet labs can catalyze commercialization, retain graduates, and attract high-value firms and researchers. This, in turn, drives job creation, knowledge economy growth, and regional competitiveness, especially as the demand for biotechnology solutions grows globally.

In 2023, the City of Kingston advanced a comprehensive proposal to FedDev Ontario seeking $5.4 million to establish wet lab infrastructure that would support both cleantech and biomedical sectors. While that application was not approved, it played an important role in validating market demand, refining the scope of need, and confirming that access to compliant wet lab space represented a critical constraint on company growth in Kingston.

Building on this work, Kingston Economic Development subsequently submitted a more targeted follow-up application focused exclusively on life sciences firms, resulting in funding approval in early 2025 to establish a 1,200 square foot wet lab facility at Providence Care Hospital. This initial facility is intended to serve as an early-stage entry point for startups and spinouts, and its development has further reinforced the need for larger, commercialization-ready wet lab capacity. TriColour Labs represents the next phase in this coordinated approach, scaling wet lab infrastructure to support growth-stage companies and completing the continuum from early validation through commercialization and scale-up within Kingston.

Proposal- Tri-Colour Labs

Queen’s University, in collaboration with Kingston Economic Development Corporation (KEDC) and the City of Kingston is proposing to establish a state-of-the-art 10,000 sq. ft. of BSL-2 Wet Lab and Biomanufacturing facility to support start-ups and scaling life and health science companies in Kingston, Ontario. Leveraging the $3.2M from the province and $3M funds from the City of Kingston, and an additional $4.5M contribution from Queen’s University, the initiative

represents a total project investment exceeding $10.7M. Queen's will revitalize preexisting infrastructure to provide flexible leasable lab, office, and event space to support growth-stage life sciences companies.

The wet lab space will foster innovation in the life sciences sector, attract companies and private investment, attract and retain highly qualified talent in the region. This will also create innovation pipeline for Kingston and the region supporting the City of Kingston's initiative to develop a life and health sciences innovation district in the city that will catalyze economic growth in the region.

Access to wet lab space has become a critical barrier to start-up, scale-up and foreign direct investment (FDI) opportunities across Canada. To overcome this, innovative and mutually beneficial partnerships between municipalities and the local post-secondary institutions have created solutions to generate economic diversification and prosperity. Examples include the University of Calgary Life Science Innovation Hub in Calgary and the University of Waterloo Innovation Arena in the Kitchener-Waterloo region.

Partnering with research-intensive academic institutions is ideal, as much of the necessary infrastructure for life and health science companies is already in place. Access to facilities at Queen's would expand the ecosystem established by the Helix Program, with the labs at Providence Care as a feeder system into wet lab space offered to spinouts and scaleups on Queen's campus. As companies grow, scale up, and graduate, they can transition to larger spaces within the city.

Additionally, some therapeutic and medical device technologies require chemistry support. These companies could leverage resources in other areas of the city, such as Impact Chemistry and the RXN Hub in Innovation Park. This continuum of collective support from the ecosystem will enable growth of companies within our region and thus creating greater economic impact.

Existing wet labs at Queen's University's Botterell Hall would be renovated into BSL-2 lab spaces ranging from 600 to 2,500 sq. ft. to act as incubators for start-ups and spinouts to de-risk their technologies, acquire critical data and clinical validation that investors require. Life science technologies require longer run-way for development, longer times to get into the market, and large research and development dollars.

With much of the necessary equipment and infrastructure already in place, the startup and spinouts which are resource strapped can shift and reallocate their limited resources to other aspects of their firm development. This infrastructure will also enhance Kingston's attractiveness for FDI. By reducing the time and upfront cost required to establish lab space, Kingston gains a competitive advantage in attracting existing life sciences companies looking to establish or expand operations in Canada.

The Infrastructure – Wet Lab Physical Space

Facility Scope- Size, Configuration, and Modularity

The wet lab facility will be developed within Botterell Hall at Queen's University and will consist of multiple dedicated BSL-2 laboratory suites designed to accommodate companies at different

stages. Individual lab units will range in size from approximately 400 square feet to 2,000 square feet totaling 6,000 squarer feet BSL-2 space allowing the facility to support a mix of smaller growth-stage firms and more advanced companies requiring larger footprints.

The labs will be configured using a modular design approach, enabling spaces to be adapted or reconfigured over time as tenant needs evolve. This flexibility allows companies to scale their footprint incrementally without leaving the facility, while also ensuring the space remains responsive to changing market demand. All labs will meet BSL-2 requirements and be suitable for regulated biological and biochemical work. See Exhibit A.

Core Lab Functions and Shared Equipment

In addition to tenant-specific lab space, companies will have access to specialized core laboratory equipment located throughout Botterell Hall. This equipment will be available primarily on a fee-for-service basis, significantly reducing the capital burden on individual firms.

Core lab functions include, but are not limited to:

- molecular biology and cell culture capabilities;
- analytical and imaging technologies;
- bioprocessing and protein characterization tools; and
- specialized instrumentation required for validation, testing, and regulatory preparation.

Access to this equipment is supported by highly trained technical staff and researchers with the expertise required to operate, maintain, and calibrate advanced instrumentation. This model allows companies to access capabilities that would otherwise be cost-prohibitive, while ensuring compliance, quality control, and efficient utilization of shared assets.

Ancillary and Supporting Spaces

The facility will also include a range of ancillary spaces designed to support commercialization-focused activity, including:

- **Office and administrative space** for tenant companies, allowing research and business development functions to occur in close proximity to laboratory operations;
- **Meeting rooms and collaboration areas** to support internal team activities, investor meetings, regulatory discussions, and engagement with academic and industry partners;
- **Shared amenities and common areas** that facilitate interaction, knowledge exchange, and ecosystem development; and
- **Access to a GMP-compliant facility within Botterell Hall**, enabling companies to undertake early-stage manufacturing, process development, and regulatory-aligned production activities without needing to secure off-site facilities.

The integration of laboratory, office, collaboration, and GMP-accessible space within a single facility supports an efficient commercialization environment and reduces friction between research, validation, and early production stages.

Capitalizing on a Kingston Competitive Advantage- Existing Specialized Life Science Technology

Access to the core life science facilities at Queen's University provides a significant competitive advantage for life science companies operating in Kingston, particularly early-stage startups, academic spin outs, and firms transitioning from discovery into validation and commercialization. This advantage is not academic in nature. It directly affects company timelines, cost structures, technical risk, and long-term viability. Ready access to advanced molecular biology, protein biophysics, imaging, flow cytometry, and animal imaging infrastructure allows companies to generate high quality data locally and efficiently, strengthening Kingston's position as a credible location for life science innovation and commercialization.

From an innovation and commercialization perspective, the availability of the equipment outlined in Exhibit B materially accelerates research and development cycles. Companies are able to move from hypothesis to validated data in days or weeks rather than months by leveraging high throughput molecular assays, advanced protein characterization tools, and in vivo and ex vivo imaging systems. Faster iteration enables earlier identification of promising leads, quicker abandonment of unviable approaches, and more rapid achievement of technical milestones. This speed is critical for meeting investor expectations, securing partnerships, and remaining competitive in fast moving global life science markets.

Access to shared core infrastructure also significantly reduces capital and operating costs for companies. Many of the instruments available through the Queen's represent multi million-dollar capital investments when purchased independently and require specialized staff, maintenance contracts, and regulatory compliance systems. By accessing this equipment on a fee for service basis, companies can avoid major upfront expenditures and instead deploy scarce capital toward talent recruitment, intellectual property protection, regulatory preparation, and business development. This lower cost structure reduces burn rates and meaningfully extends company runway, lowering the barrier to entry for new firms and increasing survival rates during early growth stages. It also provides revenue potential for the university with improved utilization of existing infrastructure and staffing.

The availability of advanced biophysical, structural, and functional validation tools also plays a critical role in de risking science before scale up or clinical translation. Companies can rigorously characterize proteins, antibodies, and biomolecules, confirm structure and stability, and advanced microscopy. This enables earlier identification of manufacturability, stability, or performance challenges that commonly cause failures later in development. Stronger and more defensible data packages improve confidence when engaging regulators, pharmaceutical partners, and investors, reducing downstream risk and cost.

Beyond technical capability, the Queen's equipment infrastructure environment enhances credibility and supports multiple life science business models. Data generated on gold standard platforms within an established institutional quality framework carries greater weight in due diligence, partnership discussions, and regulatory submissions. The breadth of available equipment supports a wide range of company types, including therapeutics and biologics, diagnostics, cell and gene therapy, biomaterials, ag biotech, and veterinary health.

Access to Queen's University life science equipment strengthens Kingston's broader innovation ecosystem through talent attraction, knowledge spillover, and improved access to non dilutive funding. Companies benefit from proximity to highly trained technical staff, trainees, and academic experts, enabling informal knowledge transfer and faster onboarding of skilled personnel. Funders such as NSERC, CIHR, NRC IRAP, and provincial programs place strong value on demonstrated access to advanced infrastructure, which improves grant competitiveness and increases the likelihood of matching funds and in kind contributions. Collectively, this shared infrastructure provides a scalable pathway from lab bench to commercial facility and represents a foundational asset in supporting Kingston's long term life sciences growth strategy.

Revenue Model Viability

The revenue model for Tri-Colour Labs is designed to be conservative, market-aligned, and financially sustainable without reliance on municipal operating subsidies. Revenues are generated primarily through lease payments for dedicated BSL-2 wet lab space, supplemented by fee-for-service access to shared equipment, core facilities, and specialized technical services. This blended model reflects best practice among comparable university-based wet labs and aligns with the demonstrated needs and willingness to pay expressed by prospective users through market validation and letters of support.

Rental revenue is the foundational component of the model and is supported by strong, documented demand. Over the past 24 months, companies have actively sought more than 23,500 square feet of wet lab space in Kingston, compared to approximately 6,000 square feet of proposed initial capacity. This demand profile provides confidence that the facility can achieve stable occupancy without relying on speculative future growth. Rental rates are benchmarked against comparable facilities in Ontario and are structured to be competitive while reflecting the high cost and regulatory complexity of delivering compliant wet lab space. Tenancy assumptions are based on commercialization-stage firms with typical space requirements of 800 to 1,500 square feet and expected tenancy durations of three to five years, supporting predictable revenue and manageable turnover.

In addition to base rent, Tri-Colour Labs will generate revenue through fee-for-service access to shared equipment and core research infrastructure located within Botterell Hall. This includes specialized instrumentation, analytical services, and biomanufacturing capabilities that would be cost-prohibitive for individual firms to procure independently. These services are delivered on a usage basis, allowing revenues to scale with tenant activity while improving capital efficiency. Additional revenues may be generated through contract research services and specialized technical support, further diversifying the revenue base and reducing reliance on any single income stream.

Year	Occupancy	Rent Revenue	CRO Revenue	Total Revenue	Total Operating Costs	Net Operating Income (NOI)
1	60%	$420,000	$100,000	**$520,000**	$640,000	**–$120,000**
2	75%	$535,500	$102,000	**$637,500**	$652,800	**–$15,300**
3	90%	$642,600	$104,040	**$746,640**	$665,856	**$80,784**
4	90%	$655,452	$106,121	**$761,573**	$679,173	**$82,400**
5	90%	$668,561	$108,243	**$776,804**	$692,756	**$84,048**
6	90%	$681,932	$110,408	**$792,340**	$706,611	**$85,729**
7	90%	$695,571	$112,616	**$808,187**	$720,743	**$87,444**
8	90%	$709,482	$114,868	**$824,350**	$735,158	**$89,192**
9	90%	$723,672	$117,165	**$840,837**	$749,861	**$90,976**
10	90%	$738,146	$119,509	**$857,655**	$764,858	**$92,797**
					Total income over 10 years	**$ 693,370.00**

Importantly, the revenue model is structured to support operational sustainability rather than profit maximization. Any net operating surplus generated will be reinvested into facility maintenance, equipment renewal, and service enhancement, ensuring long-term viability and continued alignment with economic development objectives. This reinvestment approach strengthens the public value of the facility and reduces future capital pressure on funding partners.

Financial Plan Assessment

The financial plan for TriColour Labs is intentionally conservative and reflects a clear separation between capital investment and ongoing operations, thereby limiting financial risk to the City of Kingston. The total estimated project cost is approximately $10.7 million, funded through a stacked investment model that includes $3.2 million from the Province of Ontario through the Ontario Wet Labs Program, up to $3.0 million from the City of Kingston, and approximately $4.5 million from Queen’s University in capital, in-kind contributions, and ongoing operational support. Municipal funds are strictly limited to eligible capital and equipment costs and do not support operating expenses.

Operating costs for the facility are assumed and managed by Queen’s University within its existing research and facilities management framework. Estimated annual operating costs are

approximately $640,000 and include staffing, facilities management, biosafety and regulatory compliance, equipment maintenance, and administrative support. The City is not exposed to these costs and does not bear responsibility for operating deficits, lifecycle replacement, or future capital reinvestment.

Revenue and expense projections are based on phased occupancy assumptions that intentionally avoid full lease-up in early years. Occupancy is projected at approximately 60 percent in year one, increasing to 75 percent in year two and stabilizing at approximately 90 percent by year three. Under these assumptions, the facility is projected to approach operational breakeven within two to three years and generate modest positive net operating income thereafter. Sensitivity analysis indicates that even under slower absorption scenarios, financial performance remains manageable due to the absence of municipal operating exposure and the University's assumption of operational risk.

The financial plan also benefits from structural risk mitigation through milestone-based release of public funds, confirmed matching contributions, and clear contractual delineation of responsibilities. Kingston Economic Development Corporation provides oversight and reporting during the provincial funding period, ensuring compliance with funding agreements and performance expectations. This layered approach to financial governance reinforces accountability and transparency while protecting municipal interests.

Taken together, the revenue model and financial plan demonstrate that Tri-Colour Labs is appropriately sized, financially viable, and structured to deliver long-term economic development value without creating ongoing fiscal risk for the City. The model reflects conservative assumptions, reasonable market validation, and a clear allocation of financial responsibility to the partners best positioned to manage operational and delivery risk.

Recommended Governance Model

The recommended governance model for Tri-Colour Labs is designed to protect the City of Kingston's financial and policy interests while leveraging the operational capacity and expertise of institutional partners. Governance should also include private sector expertise and perspective to ensure alignment and focus on market demand. The model emphasizes clear accountability, separation of roles, and transparent reporting, ensuring that municipal investment delivers measurable economic development outcomes without exposing the City to operational or financial risk beyond the approved capital contribution.

Under this model, Queen's University will own and operate the Tri-Colour Labs facility. As owner and operator, Queen's is responsible for facility development, construction oversight, regulatory compliance, biosafety, equipment procurement, and day-to-day operations. This structure places delivery and operational risk with the partner best positioned to manage complex laboratory infrastructure and ensures that the City is not responsible for operating deficits, lifecycle costs, or compliance obligations.

Kingston Economic Development Corporation will serve as the non-profit coordination and oversight body for the duration of other levels of government funding period and beyond, as required. In this role, KEDC will be responsible for administering and overseeing funding flows in

accordance with executed agreements, coordinating performance reporting, and monitoring economic development outcomes such as company retention, attraction, job creation, and utilization of the facility. This role ensures that the project remains anchored to regional economic development objectives rather than institutional or academic priorities alone. KEDC will also be responsible for attracting firms and investment to ensure facility utilization.

The City of Kingston will participate as a strategic funder and public-interest partner with defined governance and oversight rights, rather than as an operator. The City's role will include representation on an advisory or oversight committee, review of financial and performance reporting, and the ability to monitor alignment with Council-approved strategies and conditions of funding. This structure ensures transparency and accountability while avoiding direct involvement in operational decision making that could increase municipal risk.

Formal agreements between the City, KEDC, and Queen's University will clearly define roles, responsibilities, reporting requirements, and conditions tied to the use of municipal funds. These agreements will include provisions related to eligible use of capital funding, milestone-based release of funds, performance reporting, and remedies in the event of material non-performance. This contractual framework is intended to safeguard public investment and ensure that municipal funds are used exclusively for incremental, industry-ready wet lab infrastructure.

An advisory committee structure will support coordination and strategic alignment without creating operational complexity. The advisory body will include representation from the City, KEDC, Queen's University, private sector leaders in the life science sector and relevant ecosystem stakeholders, and will focus on monitoring outcomes, identifying emerging risks, and ensuring the facility continues to respond to market demand. Advisory committees will not have fiduciary responsibility, preserving clarity of accountability and preventing role confusion.

The recommended governance model balances strong municipal oversight with operational efficiency and risk containment. By limiting the City's role to that of strategic investor and policy steward, while assigning ownership and operations to Queen's University and coordination to KEDC, the model ensures that Tri-Colour Labs delivers public value, aligns with economic development objectives, and protects municipal interests throughout the lifecycle of the investment.

Key Partners in Project

City of Kingston

The City of Kingston is participating in the Tri-Colour Labs project as a strategic investor and public-interest partner, with a focus on advancing economic development, commercialization, and high-value job creation. The City's role is to provide targeted, one-time capital funding to enable the creation of industry-ready wet lab infrastructure that addresses a documented market gap and supports Council-approved economic development objectives. Through defined governance and reporting mechanisms, the City ensures accountability, alignment with municipal priorities, and measurable public benefit, while limiting municipal exposure by excluding operating or lifecycle funding responsibilities.

Queen's University

Queen's University is the owner and operator of the Tri-Colour Labs facility and is responsible for all aspects of facility development, delivery, and ongoing operations. The University brings extensive experience in managing complex laboratory infrastructure, regulatory compliance, biosafety, and advanced research facilities. For this project, Queen's is contributing significant capital investment, in-kind resources, and long-term operational support, ensuring the facility is delivered to industry standards and remains financially and operationally sustainable. Queen's role anchors the project within a strong research environment while enabling industry access to commercialization-stage infrastructure that does not otherwise exist in the local market.

Kingston Economic Development Corporation

The Kingston Economic Development Corporation serves as the non-profit coordination and oversight partner for the Tri-Colour Labs project. KEDC is responsible for aligning the facility with regional economic development objectives, supporting company attraction and retention, and overseeing performance measurement and reporting related to commercialization and job creation outcomes. KEDC also acts as the lead interface with provincial funding partners for the duration of the Ontario Wet Labs Program, ensuring compliance with funding requirements and coordination among project partners. This role leverages KEDC's mandate and expertise in sector development, investment attraction, and ecosystem coordination.

Due Diligence- Market Validation

To support Council consideration of municipal funding for Tri-Colour Labs, staff undertook due diligence of the project and sought a wet lab market validation process from project partners modeled on the approach previously used for approval of the RXN Reaction Hub municipal investment. This work was designed to ensure that the scale, focus, and delivery model of the proposed wet lab facility are directly aligned with documented market demand, municipal economic development objectives, and risk mitigation best practices. The process emphasized evidence-based analysis, direct engagement with prospective users, and validation through both quantitative demand data and qualitative ecosystem feedback.

The first component of the due diligence workplan focused on confirming near- and medium-term market demand for industry-ready wet lab space in Kingston. Over the past 24 months, project partners tracked direct inquiries from both homegrown companies and foreign direct investment prospects seeking wet lab space locally. This work confirmed that more than 23,500 square feet of wet lab space has been actively requested by companies that could not be accommodated due to the absence of suitable facilities. These inquiries span biotechnology, medical technologies, advanced materials, genomics, and applied life sciences, and include firms seeking space ranging from 500 square feet to 10,000 square feet, indicating demand across multiple company sizes and growth stages

This demand pattern reflects a broader market failure common across Ontario and Canada. Early- and growth-stage firms are unable to self-finance the construction of compliant wet lab space, while private developers are unwilling to deliver wet lab facilities without long-term, pre-secured leases. As a result, companies routinely relocate to larger centres such as Toronto or

Boston once they reach commercialization milestones that require regulated lab infrastructure. The documented Kingston inquiries demonstrate that this dynamic is already occurring locally and that the lack of wet lab space represents a binding constraint on company retention and attraction rather than a lack of innovation activity or talent.

To complement quantitative demand tracking, staff also had project partners collected qualitative validation through letters of support from companies and ecosystem partners. Eight companies operating across life sciences, medtech, advanced materials, digital health, and automation provided letters confirming that their lack of access to BSL-2 wet lab space is a current barrier to research translation, validation, and commercialization. These companies indicated near-term intent to use shared wet lab infrastructure for regulated R&D, technology de-risking, and early commercialization activities, and emphasized that access to such space directly influences their growth and location decisions

In addition to company-level validation, five ecosystem and institutional partners submitted letters of support affirming that wet lab infrastructure is a recognized gap within Ontario's life sciences ecosystem, particularly for growth-stage firms. These partners highlighted Kingston's strong research, healthcare, and talent assets, while noting that the absence of industry-ready lab space limits the region's ability to translate research into economic outcomes. The letters consistently position wet lab infrastructure as economic development infrastructure rather than a purely academic asset, aligning with provincial life sciences strategy objectives related to commercialization, talent development, and investment attraction

A second phase of due diligence focused on facility design validation, operational benchmarking, and gap analysis. Partners reviewed comparable university-affiliated wet lab facilities across Canada and the United States to assess appropriate scale, modularity, equipment packages, pricing models, and governance structures. This benchmarking confirmed that a modular, shared-use BSL-2 facility targeting commercialization-stage firms represents best practice and minimizes both oversupply and duplication risk. Comparative analysis also confirmed that existing Queen's University research labs and regional facilities are not designed or available for sustained industry tenancy, reinforcing that Tri-Colour Labs fills a distinct and unmet market niche rather than duplicating existing capacity.

Collectively, the market demand assessment, documented company inquiries, letters of support, and benchmarking analysis provide validation for the proposed Tri-Colour Labs facility. The evidence demonstrates clear near-term demand, alignment with municipal and provincial economic development objectives, and a well-defined role within Kingston's broader innovation ecosystem. This due diligence process reduces delivery risk, supports prudent municipal investment, and confirms that Tri-Colour Labs responds to a real and measurable market need rather than speculative future demand.

Quantified Occupancy and Absorption Outlook

Based on the documented demand provided, facility scale, and benchmarking against comparable university-based wet labs, staff project a conservative occupancy and absorption profile for Tri-Colour Labs. The facility is planned at approximately 10,000 square feet of

modular BSL-2 wet lab space, against more than 23,500 square feet of documented demand from companies seeking space in Kingston over the past 24 months.

This level of expressed demand represents nearly four times the proposed initial capacity, providing confidence that the facility can be leased without relying on speculative future growth. Occupancy is conservatively projected to reach approximately 60 percent in year one as initial tenants onboard and fit-out is completed, increasing to 75 percent in year two and stabilizing at approximately 90 percent by year three. Absorption assumptions reflect the typical tenancy profile of commercialization-stage firms, with average space requirements of 800 to 1,500 square feet and expected tenancy durations of three to five years.

This profile supports both stable occupancy and predictable turnover, allowing the facility to accommodate new entrants while retaining successful scale-ups. These projections are intentionally conservative and align with observed utilization rates at comparable facilities, reinforcing the conclusion that Tri-Colour Labs is appropriately sized, financially sustainable, and matched to current and near-term market demand.

Economic Outcomes of the Investment

The TriColour Labs investment is expected to generate measurable economic outcomes by enabling a documented pipeline of life sciences companies to commercialize and scale within Kingston. This pipeline includes homegrown startups and scale-ups emerging from Queen’s University and the regional innovation ecosystem, commercializing small and medium-sized enterprises with secured funding and early market traction, and foreign direct investment prospects evaluating Kingston but requiring immediate access to compliant wet lab infrastructure

Based on the documented company pipeline provided and benchmarking against comparable wet lab facilities in Ontario, Tri-Colour Labs is expected to create approximately 40 to 60 direct jobs within the first five years of operation. These positions include scientific, technical, regulatory, and management roles within tenant companies and are typically high-wage, knowledge-intensive jobs aligned with the life and health sciences sector. In addition, the facility is expected to generate approximately 30 to 50 indirect and induced jobs through spillover effects, including demand for professional services, equipment maintenance, contract research, logistics, and specialized trades supporting laboratory operations. These estimates are consistent with the proposed scale of the facility, the size profile of commercialization-stage firms seeking space, and conservative economic development multipliers.

TriColour Labs will also play a critical role in firm creation, attraction, and retention. The facility is expected to support between five and ten tenant companies at any given time, depending on lab configuration and tenant needs. By providing access to industry-ready wet lab infrastructure, the project will enable Kingston-based firms to remain and grow locally at a stage where relocation risk is highest, while also improving the City’s ability to attract firms from outside the region seeking a Canadian expansion location.

Beyond direct firm and job impacts, the investment is expected to generate broader spillover benefits across the local economy. Commercialization-stage life sciences companies increase

demand for specialized equipment suppliers, laboratory maintenance services, legal and accounting services, regulatory and intellectual property consulting, contract research and testing, and construction and facility services related to lab fit-out and upkeep. High-skilled employment growth also contributes to increased demand for housing, retail, and personal services.

Project and Investment Risk and Mitigation Strategies

As with any investment in specialized economic development infrastructure, the Tri-Colour Labs project presents a defined set of risks that have been assessed through due diligence and mitigated through project design, governance, and funding structure. The City's approach reflects lessons learned from prior investments such as the RXN Reaction Hub and is intended to ensure that municipal participation is limited, time-bound, and aligned with measurable public benefit.

The primary market risk relates to whether sufficient demand exists to sustain occupancy and utilization of the wet lab facility over time. This risk is mitigated by extensive market validation, including documented demand exceeding proposed capacity by a significant margin, direct company inquiries over a 24-month period, and formal letters of support from prospective users and ecosystem partners. In addition, the facility has been intentionally sized and designed as modular space, allowing capacity to be adapted to changing market conditions without creating stranded or underutilized infrastructure. Conservative absorption assumptions further reduce exposure to downside scenarios.

Financial risk to the City is mitigated by limiting the municipal contribution strictly to capital and equipment costs. The City will not be responsible for operating deficits, lifecycle costs, or future capital reinvestment. Ownership and operation of the facility rests with Queen's University, which has committed to assume all ongoing operating, maintenance, and compliance responsibilities. This structure ensures that municipal exposure is capped at the approved investment amount and does not create an ongoing fiscal obligation.

Delivery and construction risk is addressed through the selection of an experienced institutional partner with a demonstrated track record in complex laboratory development and operations. Queen's University will lead all design, procurement, construction, and commissioning activities, using established internal governance, procurement controls, and regulatory compliance processes. The City's funds will be released on a milestone claim basis, tied to confirmed matching contributions, executed agreements, and verified progress, reducing the risk of cost overruns or incomplete delivery.

Governance and accountability risk is mitigated through a clear separation of roles and responsibilities among partners. Queen's University will own and operate the facility. Kingston Economic Development Corporation will serve as the non-profit oversight and coordination body for the duration of the other levels of government funding program, including performance monitoring and reporting and attraction of client firms for the facility. The City will participate as a strategic partner with defined governance and reporting rights, ensuring transparency, alignment with municipal objectives, and accountability for public investment outcomes.

Policy and strategic alignment risk is mitigated by ensuring that the project directly advances Council-approved priorities, including the Integrated Economic Development Strategy, workforce objectives, and employment lands strategy. The project also aligns with provincial life sciences and commercialization priorities, reducing the risk that the facility becomes misaligned with future funding or policy directions. By positioning Tri-Colour Labs as economic development infrastructure rather than academic expansion, the City ensures that public benefit remains central to the investment rationale.

These mitigation strategies ensure that the City's investment in Tri-Colour Labs is proportionate, strategically aligned, and structured to manage downside risk while enabling meaningful economic development outcomes.

Alignment with Key Community Stakeholder- Queen's University

Queen's University's research strategy emphasizes research excellence with societal impact, particularly in areas that require translational capacity and partnerships beyond the university. Queen's identifies Health, Biomedical and Clinical Research, Engineering and Materials, and Interdisciplinary Research addressing societal challenges as core strengths, supported by significant external funding and infrastructure investments.

The proposed wet-lab directly aligns with these priorities by enabling bench-to-application research, supporting faculty whose work depends on biological, chemical, or materials experimentation, and creating pathways for research outcomes to progress toward commercialization and real-world use. This is consistent with Queen's stated objective to strengthen knowledge mobilization and innovation outcomes as part of its broader research mission.

Importantly, Queen's research activity generates a steady flow of invention disclosures, patents, and industry-relevant research, yet most existing wet-lab capacity on campus is grant-funded and reserved for academic use, limiting the university's ability to support translational and industry-engaged research at scale. A shared, industry-accessible wet lab complements — rather than duplicates — existing research infrastructure by addressing this structural gap.

The wet-lab initiative aligns closely with several established Queen's research institutes and platforms whose work depends on wet-lab capabilities:

- **Queen's Sinclair Cancer Research Institute (QSCRI)** conducts internationally recognized research in cancer biology, molecular medicine, and translational oncology, much of which relies on advanced wet-lab experimentation and collaboration with clinical and industry partners.
- **Ingenuity Labs Research Institute** supports applied research in engineering, materials, and advanced manufacturing, including bio-interfaces, sensors, and materials innovation that increasingly intersect with life sciences and health technologies.
- **Biomedical and Molecular Sciences (BMSC**) programs at Queen's support interdisciplinary training and research across biomedical disciplines, producing graduate students and postdoctoral researchers whose work often transitions toward applied and commercial pathways.

- **Queen's Partnerships and Innovation (QPI)** administers federally funded commercialization and scale-up programs (including FedDev Ontario–supported initiatives) that have supported hundreds of startups and SMEs but currently lack on-campus wet-lab infrastructure to fully support life-science-based ventures.

A shared wet-lab facility would serve as enabling infrastructure for these institutes and programs by providing flexible, compliant laboratory space that supports collaborative research, industry partnerships, and early-stage company development without drawing on faculty-allocated research labs.

Alignment of Project with City, Community, Provincial, and Federal Priorities

The development of a dedicated wet lab facility directly advances City Council's Strategic Priorities, specifically the mandate to support the second phase of grants and partnerships for health innovation and the creation of a life sciences hub. The inclusion of wet lab infrastructure represents a critical next step in building the region's capacity to attract, retain, and grow firms engaged in biotechnology, medical research, diagnostics, and health innovation.

The project also aligns strongly with the Kingston Integrated Economic Development Strategy (2020–2025), which identifies health innovation and life sciences as a priority cluster, and highlights the need for investment in enabling infrastructure that supports commercialization, postsecondary research partnerships, and talent retention. By anchoring early-stage biotech ventures in Kingston through accessible laboratory space, the facility addresses a long-identified infrastructure gap in the region.

This municipal investment complements the broader Life Sciences District vision emerging through collaboration between the City of Kingston, Queen's University, KHSC, Providence Care, Kingston Economic Development, and federal and provincial partners. The initiative builds on Queen's University's strengths in biomedical and health research, including its recent expansion of health sciences programs and wet-lab research capacity, and aligns with KHSC's hospital redevelopment plans, which include integration with a research and innovation precinct.

At the provincial level, the project is aligned with the Ontario Life Sciences Strategy, which includes a specific focus on increasing access to specialized wet lab space, particularly in under-served regions outside the GTA. Ontario's Wet Lab Program, which the Kingston Economic Development Corporation has applied to, is designed to unlock capital for exactly this type of infrastructure to support firm growth, talent attraction, and regional economic resilience.

Federally, this initiative aligns with priorities under Canada's Biomanufacturing and Life Sciences Strategy, as well as the Laboratories Canada program, which aims to modernize national research infrastructure and promote commercialization. The project also supports objectives under the Canadian Innovation and Investment Agency and Sustainable Development Technology Canada, particularly when considering the potential for the wet lab to support innovations that intersect with cleantech, biosciences, and advanced materials.

This investment directly supports Kingston's partnerships with local and regional stakeholders, including Queen's University, St. Lawrence College, KHSC, and Providence Care, and

addresses a national challenge: the lack of mid-market, scalable wet lab space for early-stage firms. This project ensures Kingston is positioned as a viable and competitive node in the broader health innovation economy.

Alignment with the Kingston Health and Life Sciences Innovation District

The Tri-Colour Labs project is directly aligned with, and foundational to, the City of Kingston's work to advance a new Health and Life Sciences Innovation District. The district concept is focused on clustering research, clinical activity, commercialization infrastructure, talent, and private investment within a coordinated geography and governance framework. Tri-Colour Labs provides one of the critical pieces of enabling infrastructure required to translate research and clinical strengths into sustained economic and employment outcomes, anchoring commercialization activity within the district rather than allowing it to disperse to other jurisdictions.

The Innovation District vision is built on Kingston's unique concentration of assets, including Queen's University, Kingston Health Sciences Centre, Providence Care, and affiliated research institutes, alongside municipal and economic development partners. While these institutions generate strong research output, clinical insight, and talent, the absence of industry-ready wet lab and biomanufacturing space has limited the district's ability to support companies as they move beyond early research stages. TriColour Labs addresses this gap by providing commercialization-stage infrastructure that allows firms to remain embedded within the district ecosystem as they scale.

Tri-Colour Labs also supports the district's intended pipeline model, which emphasizes progression rather than single-site solutions. Early-stage companies and spinouts can enter the ecosystem through smaller wet lab facilities, such as those at Providence Care, and transition into TriColour Labs as their space, regulatory, and technical needs increase. From there, successful firms are expected to graduate into larger commercial or manufacturing space elsewhere in the city. This staged approach aligns with innovation district best practices and ensures that infrastructure investments reinforce each other rather than compete.

From a spatial and functional perspective, locating Tri-Colour Labs within Botterell Hall strengthens the district's core by integrating research, commercialization, and applied innovation within close proximity. Companies operating in Tri-Colour Labs benefit from direct access to advanced core facilities, clinical collaborators, highly skilled talent, and institutional expertise, all of which are central components of a successful innovation district. This proximity reduces friction between discovery, validation, and early production, accelerating company timelines and improving commercialization outcomes within the district.

The project also reinforces the district's economic development objectives by enabling the types of firms that generate the greatest long-term impact. Commercialization-stage life sciences companies create high-value jobs, attract private investment, and generate demand for specialized services and facilities. By ensuring that these firms can locate and grow within the district, Tri-Colour Labs helps translate public and institutional research investment into tangible economic returns for the community.

Tri-Colour Labs strengthens the credibility and investability of the emerging Health and Life Sciences Innovation District when engaging provincial, federal, and private-sector partners. Governments and investors increasingly look for districts that demonstrate readiness through physical infrastructure, institutional collaboration, and clear governance. The delivery of Tri-Colour Labs signals that Kingston is moving from concept to implementation, positioning the district as a competitive, investment-ready node within Ontario's and Canada's life sciences ecosystem.

Indigenization, Inclusion, Diversity, Equity & Accessibility (IIDEA) Considerations

The Tri-Colour Labs initiative supports Indigenization, Inclusion, Diversity, Equity and Accessibility objectives by reducing financial, institutional, and systemic barriers that limit participation in the life and health sciences innovation ecosystem. Access to compliant wet lab infrastructure is a well-documented constraint for early-stage entrepreneurs, academic spin-outs, and small firms, particularly those led by women, Indigenous founders, newcomers, and racialized entrepreneurs who are less likely to have access to private capital or dedicated institutional lab space. By providing shared, right-sized, industry-ready wet lab space through flexible and market-accessible arrangements, Tri-Colour Labs lowers the threshold for participation and enables a broader range of innovators to progress from research into validation and commercialization.

The project also advances equity and accessibility through its operating and governance model. By shifting access to wet lab infrastructure away from grant-restricted academic environments toward a transparent, shared commercialization platform, Tri-Colour Labs expands access regardless of institutional affiliation. The facility's location within an accessible institutional building, its modular and adaptable lab design, and proximity to transit and shared amenities support a diverse workforce with varying needs. Governance and oversight by the City and Kingston Economic Development Corporation embed accountability and enable ongoing monitoring of access and outcomes, ensuring that barriers can be identified and addressed over time. Collectively, Tri-Colour Labs contributes to a more inclusive and equitable innovation ecosystem by broadening access to critical infrastructure and economic opportunity in Kingston's life sciences sector.

Financial Considerations

This investment aligns with Council-approved priorities related to economic development, health innovation, and commercialization infrastructure. The recommended $3 million capital contribution will be funded through a reallocation of existing employment land works-in-process**.** There are no current or future operating budget impacts for the City associated with this project. All ongoing operating and lifecycle costs will be borne by the project owner and operator, Queen's University. Municipal exposure is therefore limited to the approved capital amount. The City's investment is conditional on confirmed higher-level government funding and executed agreements with Kingston Economic Development Corporation and Queen's University. Municipal funds will be released on a claim-based, milestone-driven basis tied to confirmed matching contributions and construction progress.

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Brandon Forrest, Director, Real Estate and Environment

Lana Foulds. Director, Financial Services

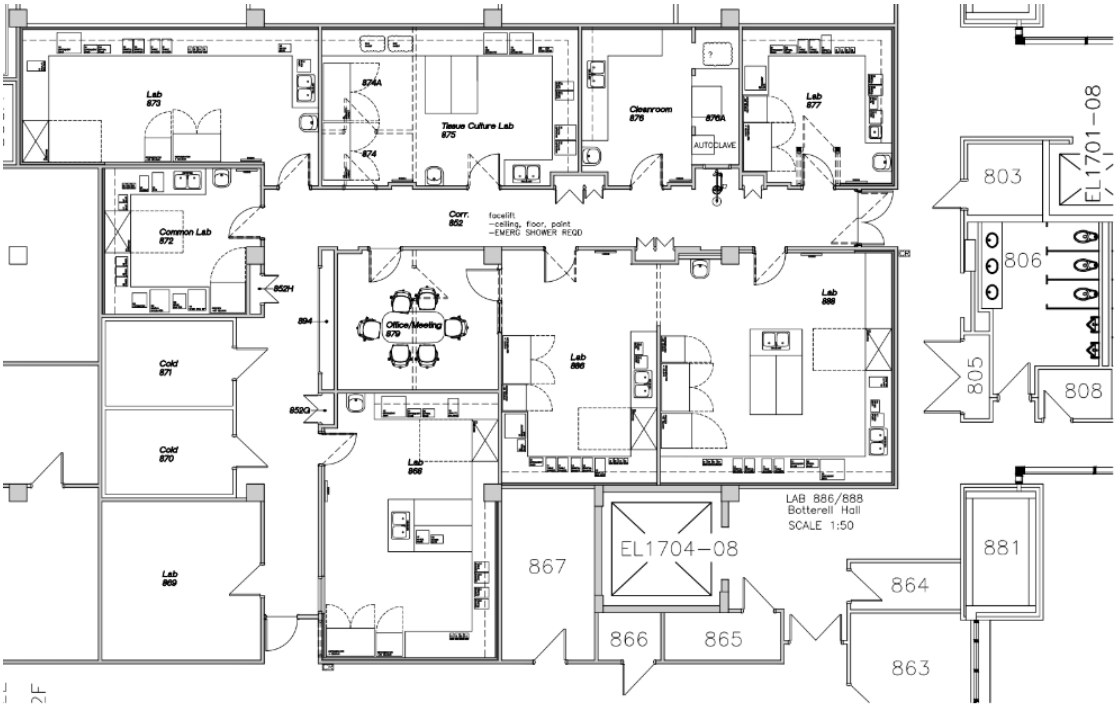
Exhibits Attached:

Exhibit A – Tri-Colour Labs Facility Scope

Exhibit B – Shared Life Science Equipment

8th Floor Botterell Hall - The 8th floor of Botterell Hall will contain 6 labs: 3 smaller private labs, 1 large lab, 1 common lab for shared equipment, and 1 common tissue culture lab. There will be a cleanroom including an autoclave for glassware washing. There will be 1 office/meeting room. The large lab and common rooms will serve as collision spaces and collaboration areas. All these spaces are connected by a common hallway.

Layout Mock-up (subject to change as functional space planning and mechanical review are completed)**:**

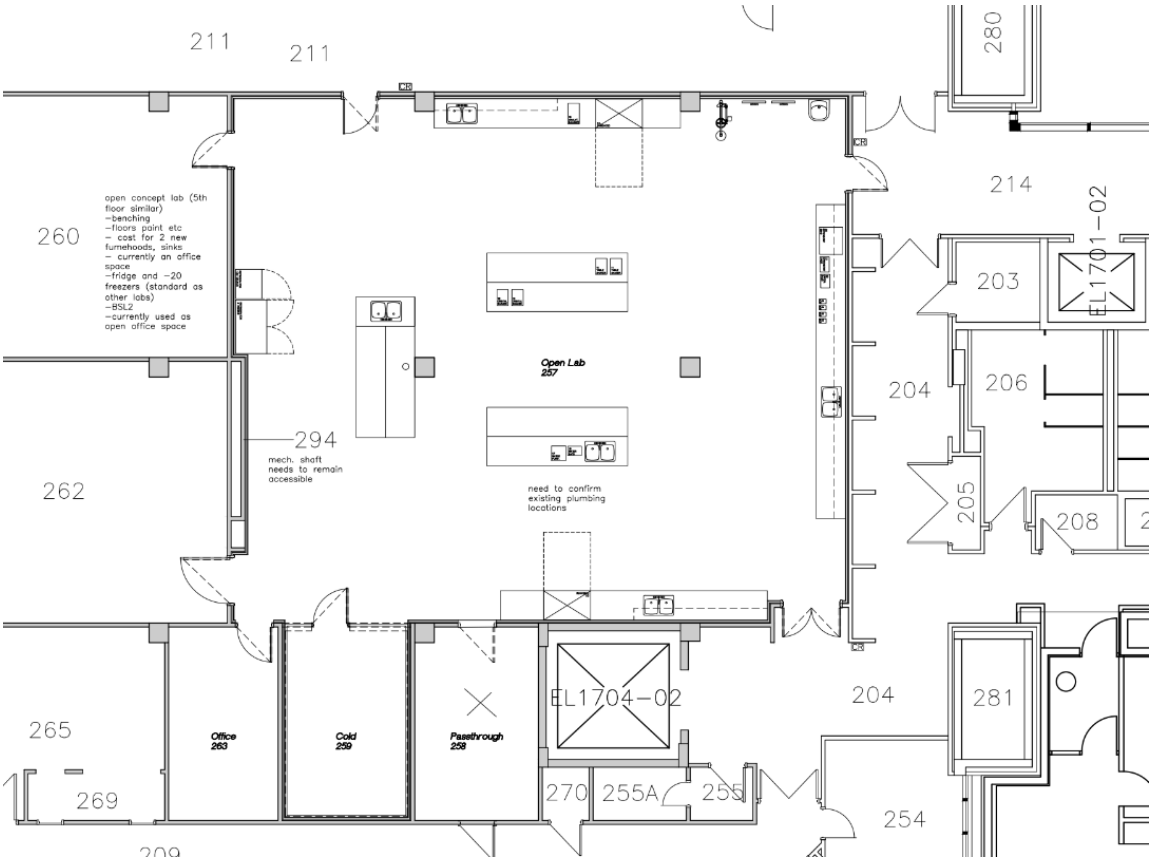


Size:

Room Number	Room Type	Size (sq m)
873	Private Lab	35.86
874A/874/875	Tissue Culture Lab	33.42
876/876A	Cleanroom	19.54
877	Private Lab	20.11
886/888	Large lab	76.75
872	Common Lab – shared equipment	18.83
868	Private lab	39.23
879	Office/meeting room	18.37
Total Lab Space (minus office/meeting room)		243.74

2nd Floor Botterell Hall - The 2nd Floor of Botterell Hall will contain 1 large, open-concept lab, 1 meeting/office room, and 1 cold room. The open-concept lab serves as a collision space to facilitate collaboration. The office/meeting room and cold room will only be accessible from the lab space.

Layout Mock-up (subject to change as functional space planning and mechanical review are completed):



Size:

Room Number	Room Type	Size (sq m)
257	Lab	216.68
259	Cold room	15.25
263	Office/meeting room	14.33

Shared Life Science Equipment

Within common lab spaces, several common pieces of equipment will be made available for shared use:

- **Cold storage:** refrigerators, -20°C and -80°C freezers.
- **Western Blot/DNA electrophoresis:** Mini protean acrlmide gel system, Chemi Doc MP.
- **Polymerase Chain Reaction:** thermocyclers.
- **Tissue culture:** biological safety cabinet, microscope, incubators, large centrifuge.

Core Facilities: 5th Floor

The Queen's University Core Facilities has equipment for molecular biology, protein biophysics, and imaging, flow cytometry, and microscopy available on a **fee-for-use basis**. These facilities are equipped to accommodate a diverse range of research projects.

Protein Biophysics

Equipment	Description
Beckman Coulter XL-I	Analytical ultracentrifuge where samples are monitored in real time by an integrated optical detection system. Used to determine shape, diameter, mass, stoichiometry, purity, and more of samples.
Chirascan - Circular Dichroism Spectrometer	Utilized to study the folding and unfolding mechanisms of proteins and effects of thermal or chemical changes.
Differential Scanning Calorimetry	Measures enthalpy of protein unfolding due to heat denaturation.
MicroCal iTC200 - Isothermal Titration Calorimetry (ITC)	Measures the heat change that occurs when two substances interact.
VP-ITC	Delivers the information needed to characterize the molecular interactions of proteins, antibodies, nucleic acids and other biomolecules.

Equipment	Description
Fluorolog Tau-3 - Fluorimetry	Modular spectrofluorometer that can perform time-resolved fluorescence measurements to reveal information about the kinetics of molecular processes.
AKTA Explorer - Fast Purification Liquid Chromatography (FPLC)	Protein purification.
SEC-MALS - Size-Exclusion Chromatography and Multi-angle Light Scattering	Monitors the purification, separation and formation of protein complexes in real time.
Protein crystallography and X-ray diffraction facility	Necessary equipment and support for generating and screening crystals of proteins and for collecting single crystal x-ray diffraction data

Animal Imaging

Equipment	Description
Leica CM1850 Cryostat	Cutting frozen sections of materials and produce tissue sections for various applications.
Perkin Elmer IVIS Ilumina III	High resolution biophotonics setup configured for a wide variety of fluorescent and bioluminescent probes and reporter proteins.
Epredia™ STP 120 Spin Tissue Processor	Used to process biological specimens from chemical fixation to paraffin infiltration.
Shandon Embedding Center	Used for embedding of histological specimens.
The Vevo system	Ultrasound Imaging – used to produce a composite 3d image of the internal structures.
Konica SRX101A	Tabletop X-Ray Film Processor used to produce high quality radiographs with easy operation.

Molecular Biology

Equipment	Description
Bio-Rad CFX Opus Real-time PCR	Used for detection and quantification of nucleic acids in samples.
Bio-Rad CFX 96	Deliver sensitive, reliable detection for singlexplex or multiplex nucleic acid reactions.
Bio-Rad S1000 Thermocycler	Used for detection of nucleic acids using PCR.
Droplet Digital PCR (ddPCR)	Used to determine the target DNA template concentration in a sample by performing digital PCR using water-oil emulsion droplet technology.
NanoDrop 2000 Spectrophotometer	Allows quick quantification of DNA, RNA, and protein from only 1–2 µL of sample.
Applied Biosystems 7500 Fast Real-Time PCR System	Real-time PCR system which enables high-speed thermal cycling with run times for quantitative real-time PCR applications of fewer than 40 minutes
SpectraMax® QuickDrop™ Micro-Volume Spectrophotometer	Quantifies very small amounts of DNA, RNA, oligos, and proteins.
Chromium X	Automized cell partitioning and barcoding for single-cell analysis.
QuantStudio 12K Flex	Real-time PCR instrumentation.

Flow Cytometry

Equipment	Description
Beckman Cytoflex S	4 laser (Violet-Blue-Yellow Green-Red) flow cytometer allowing analysis of samples in a multiwell round bottom plate (up to 13 fluorophores).
Beckman Cytoflex	3 laser (Violet-Blue-Red) flow cytometer allowing analysis of samples in a 12 x 75 mm tube format (up to 10 fluorophores).

Equipment	Description
Beckton Dickenson FACS Aria III	High speed cell sorting - 2 scatter channels and up to 8 simultaneous colours.
BD FACSsymphony cell analyser A3	Enables the simultaneous detection of up to 30 parameters and 28 colors.
Beckton Dickenson FACS Aria Fusion	High speed cell sorting - 2 scatter channels and up to 18 simultaneous colours.

Microscopy

Equipment	Description
EVOS M7000 Imager	High-performance, fully automated, inverted, multi-channel fluorescence and transmitted light imaging system.
SD TIRF - Spinning Disc Confocal w/ Total Internal Reflectance of Fluorescence module	3D and live cell/tissue imaging.
Zeiss Axio Imager M2 - Multichannel Compound Epifluorescence	Wide range of lenses, motorized Z-drive and can be used to acquire 3D images.
Olympus Bright Field Compound	Uses light rays to produce a dark image against a bright background. It is most commonly used to visualize fixed and live specimens that have been stained.
Leica Mica Microhub	A highly automated microscope - unites widefield and confocal imaging in a sample protecting and incubating environment.
Aperio VERSA Brightfield - Leica Slide Scanner	Fluorescence & FISH Digital Pathology Scanner.
Nikon AX confocal microscope	Large field-of-view on both inverted and upright microscope.
CellCyte X	High-throughput live-cell imaging system.

Plate Readers

Equipment	Description
Beckman DU-640B UV/Vis Spectrophotometer	Spectrophotometry unit that analyzes samples in single-cell cuvettes using multiple program settings including fixed wavelength, scatter correction, net A, time-based kinetic/rate determination, subtraction/addition, etc.
Spectramax ABS Plus	Absorbance - compatible with 1 cm cuvettes, as well as 96 and 384 well plates.
Spectramax Gemini Plate Reader	Flexible environment to determine the optimal excitation and emission settings for fluorescence intensity assays.
Spectramax ID3 Multimode Plate Reader	Measures absorbance, fluorescence, and luminescence which can be used for a variety of molecular applications.
Spectramax ID5 Multimode Plate Reader	Includes absorbance, fluorescence, luminescence, time-resolved fluorescence, and tunable fluorescence polarization read modes.
ThermoFisher Varioskan Plate Reader	Used to measure fluorescence intensity, time-resolved fluorescence, absorbance and luminescence in end point / kinetic / spectral measurements in the UV/Vis/NIR range

Gel and Blot Imagers

Equipment	Description
Azure c300 Gel Imaging System	Capable of UV, blue-light, white-light and chemiluminescent imaging of Western blots, DNA and protein gels.
Azure c600 Gel Imaging System	Used to image visible fluorescent dyes, standard EtBr and Coomassie-stained protein gels.
Odyssey® DLx Infrared Imaging System (LI-COR)	Supports many applications - Western blots, plate-based assays, cell-based assays, EMSA, DNA gels, Coomassie gel imaging, protein arrays, tissue/organ imaging.