

Office/Department/Program:

Vice-Principal Research Portfolio, Commercialization & Ventures, Queen's University

Job Title:

QDIUA PhD Intern - Deep-Tech / Biotech Commercialization Research Analyst

Brief description of your unit/organization:

Commercialization & Ventures supports the translation of Queen's research into societal and economic impact through technology transfer, startup formation, licensing, partnerships and investor engagement. We work across disciplines to evaluate and de-risk early-stage technologies-particularly deep-tech and biotech-by blending technical assessment, regulatory insight and market analysis to inform licensing and venture decisions.

Role summary:

We are seeking a Queen's PhD student to lead the design and validation of a rigorous, operational commercialization evaluation framework and decision-support toolkit tailored to deep-tech and biotech ventures. Your work will directly inform licensing, startup formation and investor diligence at Queen's, producing tools and case studies that the Commercialization & Ventures team will use to prioritize technologies and recommend commercialization pathways.

Primary project responsibilities

- Conduct an in-depth literature and practice review of commercialization frameworks, technology readiness models, IP/value drivers, investor diligence criteria, and regulatory pathways relevant to deep-tech and biotech.
- Benchmark approaches used by Canadian and international tech transfer offices, accelerators, VCs and corporate venturing groups.
- Design and validate a comprehensive evaluation framework (scoring rubric) covering: technology readiness, IP strength, market need/size, competitive landscape, regulatory pathway and timelines, team capability, required capital and exit pathways.
- Build an operational decision-support toolkit (spreadsheet model + one-page playbook) that implements the rubric and supports scenario analysis.
- Apply the framework to 2-3 applied case studies (Queen's projects or public examples) and refine the toolkit based on stakeholder feedback.
- Produce a final report, slide deck and present findings to Commercialization & Ventures leadership with clear recommendations for adoption and implementation.

- Support up to two short analytical requests from the team (e.g., market snapshot, investor mapping).

Day-to-day responsibilities

- Attend weekly supervision meetings and lead monthly mentorship/reflection meetings per QDIUA.
- Maintain project documentation, share interim updates, and submit a weekly timesheet.
- Attend relevant team meetings, workshops, and selected external conversations (investors, regulators) as arranged.

Deliverables & timeline (examples)

- Month 1 (Jan): Literature review & benchmarking summary; stakeholder interview plan; draft framework outline.
- Month 2 (Feb): Prototype scoring rubric and toolkit (spreadsheet + playbook); 5–8 stakeholder interviews completed.
- Month 3 (Mar): Apply framework to 2-3 case studies; iterate toolkit based on feedback.
- Month 4 (Apr): Final report, toolkit, slide deck and presentation; handover and implementation recommendations.

Intern Learning Outcomes:

By the end of the internship you will have:

- Produced a reproducible commercialization evaluation rubric and an operational toolkit ready for use by the team.
- Led stakeholder interviews and synthesized qualitative and quantitative inputs into actionable recommendations.
- Demonstrated the ability to present complex commercialization analyses to senior leaders and respond to implementation questions.
- Grown your professional network across tech transfer, investment and regulatory stakeholders.

Desired qualifications

Required

- Current PhD student enrolled at Queen's University and eligible for QDIUA.
- Demonstrated research synthesis and strong written communication skills. **A writing sample is required.**

- Background in deep-tech or biotech research demonstrated through research projects, coursework, internships, or relevant professional experience, such as:
 - Therapeutics & Biopharma
 - Diagnostics & Biomarkers
 - Medical Devices & Medtech
 - Digital Health & SaMD (software as medical device)
 - Clinical Trials & Biostatistics
 - Health Services, Policy & Health Economics
 - Implementation Science & Evidence Translation
 - Rehabilitation, Assistive & Human Factors Tech
 - Precision Medicine & Genomics
 - Microbiome & Live Biotherapeutics
 - Advanced Materials & Nanotechnology
 - Photonics, Optics & Imaging
 - Quantum Technologies
 - Robotics, Autonomy & Mechatronics
 - Sensors, MEMS & Instrumentation
 - Additive & Advanced Manufacturing
 - Energy Systems & Storage (batteries, grid)
 - Water, Environment & Climate Technologies
 - Autonomous Systems & Unmanned Platforms (land, air, sea)
 - ISR, Sensor Fusion & Situational Awareness
 - Secure Communications & Networking (tactical comms, mesh, resilient networks)
 - Cybersecurity for Defence (incident response, secure architectures)
 - Electronic Warfare & RF Technologies (sensing, jamming, spectrum management)
 - Counter-UAS & Countermeasures
 - Sensors, MEMS, and Imaging for Defence Applications
 - Materials, Coatings & Protective Systems (armor, stealth, durability)
 - Power, Energy & Tactical Microgrids (batteries, hybrid power for platforms)
 - Avionics, Propulsion & Platform Integration
 - Simulation, Synthetic Environments & Training Tech
 - Command, Control, Communications, Computers, Intelligence, Surveillance & Reconnaissance (C4ISR)
 - Space & Satellite Systems for Defence Use (satcom, ISR, space domain awareness)

- Non-Lethal & Protective Technologies (CBRN detection, medical countermeasures, protective equipment)
- Strong analytical skills (quantitative and qualitative synthesis; competent in Excel).
- Ability to attend ~10 hours/week and manage project deliverables independently.
- Commitment to the QDIUA mentorship and reflection process.

Preferred (assets)

- Experience with technology transfer, startups, venture capital, regulatory affairs (biotech/health), valuation or decision-support tools.
- Experience building rubrics, scoring models, or operational toolkits.
- Basic programming/data-analysis skills (Python/R/SQL).
- Prior stakeholder interviewing or workshop facilitation experience.

Equity, diversity, inclusion, accessibility & anti-oppression (I-EDIAA)

Commercialization & Ventures is committed to equity, diversity, inclusion, accessibility and anti-oppression. We welcome applicants from all backgrounds and encourage candidates who bring diverse perspectives and lived experience. Reasonable accommodations are available during the hiring process and the internship-please contact the hiring coordinator if required.

How to Apply

Submit via the QDIUA application (MyCareer) process by the program deadline with:

- Cover letter (1 page) describing fit, interest, and relevant experience (include which aspects of deep-tech/biotech commercialization you know best).
- CV (2-3 pages).
- Short writing sample (max 3 pages; thesis excerpt, report or brief). Optional: short list of 1-2 references or contact details.

We look forward to applications from candidates eager to build tools that move research toward real-world impact.