



Research Manager

Bio-economy Skills Profile



Building skills for Canada's bio-economy

About BioTalent Canada

Helping Canada's Bio-economy thrive globally

Canada is a world leader in biotechnology—the application of living organisms to industrial, agricultural, medical and other processes and products. To maintain and build on this leadership, the sector needs highly trained, job-ready people.

By acting as a national hub and central resource for employers, job-seekers, students, educators and government agencies, BioTalent Canada helps make this happen.

The opinions and interpretations expressed in this publication are those of the author and do not necessarily reflect those of the Government of Canada.



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About the BioTalent Canada bio-economy skills profiles

Biotechnology's fusion of science and business creates unique requirements for occupations in the sector. Executives and managers must have technical expertise; technical staff often needs entrepreneurial skill sets. Occupational descriptions from other sources don't always fit the bio-economy context. That's why, in partnership with industry stakeholders, BioTalent Canada has developed skills profiles specific to the bio-economy including this description of the role research manager.

Occupational Definition

Research managers manage the design and implementation of research, pre-market and post-market research programs. This involves the development and management of timelines and budgets, liaising with external contractors, communicating and reporting performance results to the director, mentoring to new staff, ensuring compliance with Good Clinical Practices, Standard Operating Procedures and regulatory and legal requirements. The research manager is knowledgeable in the application of industry and regulatory guidelines. The research manager also prepares and manages strategic and operating plans, budgets and forecasts, general department logistics and administration. In addition they are responsible for the management of the research professionals involved in the research, pre-clinical studies, clinical trials and/or field trials and the oversight of investigator performance to milestones and contract objectives.

The research manager normally possesses a BSc., Masters, or PhD degree, coupled with 3 years of progressively more responsible scientific-focused roles. Research Managers work for Canadian biotechnology companies of different sizes (i.e., small, medium, large) and in various biotechnology areas, such as:

- Agriculture
- Aquaculture
- Bioenergy
- Bioinformatics
- Bioproducts
- Biosciences
- Environment
- Food Processing
- Forestry
- Genomics
- Human and Animal Health
- Industrial
- Life Sciences
- Medical Devices
- Natural Resources
- Nanotechnology
- Nutraceuticals
- Pharmaceuticals

Components of the skills profile

Every BioTalent Canada skills profile presents the areas of competence, tasks and sub-tasks associated with a specific occupation.

Area of competence (AC): This describes a major function or responsibility associated with the profession, trade or position.

Task: This is a specific, observable unit of work with definite start and end points. Tasks can be broken down into two or more steps and are generally performed in a limited period of time. Tasks and ACs are identified in behavioural terms, beginning with a verb that describes the applied behaviour.

Subtask: This is a distinct, observable activity that comprises the steps involved in a task.

Important Action/Performance Standard: This provides a criterion for assessing competence and may be used as a performance indicator.

Focus on competencies

The BioTalent Canada skills profiles are built around areas of competence because competencies are flexible, inclusive and linked directly to performance: they are the traits or qualities a professional must have to succeed in a given role within a given organization, and can be used for recruiting, professional development, curriculum planning and many other purposes.

How to use the profiles

The complete contents of this or any BioTalent Canada skills profile are unlikely to be used for any one position. Because they are comprehensive, they include every area of competence, task and subtask that could be required for a specific occupation. In reality, the definition of a given job will encompass a narrower subset of the profile. Hiring organizations must choose the elements of the profiles that are relevant to their businesses—and tailor those elements as necessary to more precisely describe their particular job requirements.

The profiles can be put to many uses:

- **Employers** can use them to develop job descriptions, performance evaluations, professional development, succession planning, team building, target skills needed, and recruitment plans.
- **Job seekers** can use them to tailor their resumes, prepare for interviews, see job descriptions and identify additional professional development needs.
- **Educators** can build industry-oriented curricula from the profiles to produce job-ready graduates.
- **Students** can enhance their understanding of employers' expectations and choose the right educational programs to equip themselves with the skills for success.

Scenario

The following illustrates how an employer might use the BioTalent Canada skills profiles to identify professional development priorities for his or her team.

Step 1

The employer would review the ACs for each occupation and identify which apply to the related positions within his or her company, omitting those that are not relevant.

Step 2

Under the selected ACs, the employer then notes which of the associated tasks, subtasks and important actions are relevant to that specific position within his or her business.

Step 3

Now with a complete, tailored profile, the employer can assess employee performance. Needs areas are easily identified and defined—to a significant depth of detail.

Step 4

Based on the needs analysis, the employer can either develop or seek out professional development programs that address employee needs areas.

Situational Analysis

Research managers are trained professionals who bring people with different expertise and capabilities together to achieve a common goal. They implement and coordinate research projects that have been defined by the research director and act as champions for each project from beginning to end. This involves the development and management of timelines and budgets, liaising with external contractors, communicating and reporting performance results to management, and managing intellectual property arising from research efforts. They align the scientific aspects of a research project or program with the strategic and business goals of an organization. Research managers are often found in industry, contract research organizations, regional or national research centers, academic research centers and institutions and government research agencies.

A research manager usually has administrative responsibilities. These typically include recruiting team/staff members, managing their work assignments, monitoring performance and providing feedback and supporting individual career growth and development. They also prepare and manage strategic and operating plans, budgets and forecasts, general department logistics and administration. As well, the research manager will promote and ensure that standard protocols and practices were adopted and implemented in their team or organization, for example standard operating procedures for safety, and compliance with Good Clinical and Good Laboratory practices. From time to time there may be a requirement to work with sub-contractors. Research managers may be responsible for managing the working relationship with these parties, reviewing and reporting on performance and approving invoices for payment.

Research managers need to keep up-to-date with other research being carried out in, or related to, their area of research. This involves Internet and information database searches, and reading scientific journals and literature, as well as attending scientific meetings/ conferences and networking with peers and colleagues around the globe.

Mentoring, delegating and listening are all skills that are important for a research manager, and will help them build effective and cohesive research teams. Well developed interpersonal and communication skills (both written and verbal) enable research managers to interact effectively with clinicians, research scientists, and a wide variety of professionals in technical, clinical, marketing, developmental design, and executive departments. They must be able to explain complex information in a clear and concise way that scientific and non-scientific individuals can understand, using both technical and business terminology. The ability to cope with change, solve problems and work through conflicts constructively helps them move the research plan forward. On a personal level, attributes such as honesty, fairness and respect for team members, colleagues and others are desirable in a research manager.

Research managers usually have several projects underway simultaneously, so planning, setting priorities; being organized and multi-tasking are all attributes of an accomplished research manager. They are also likely to have well developed/robust understanding of how computers can be used to handle and analyze complex data, and are comfortable working with computers.

Continuous learning is an integral part of the job for research managers. They are expected to maintain and enhance their knowledge of their research field, keep up with legislative and regulatory changes, technological advances and other events affecting their team or research direction. Research managers are usually well grounded in the science they are managing and have usually spent several years working in their scientific field. They typically hold an advanced degree such as a MSc. or a PhD in a scientific field, a DMV or a MD. Employers look to research managers to have several years' practical research experience in their specialty as well as work experience in the industry. While specific requirements will vary with each organization and the scope and nature of the position, it appears that research managers are expected to have 2–5 years experience or more in the research field and/or the industry.

Essential Skills

The most important Essential Skill(s) for this Profile: ✓				
Reading Text	✓	Thinking Skills – Problem Solving		Working With Others
Document Use	✓	Thinking Skills – Decision Making		Computer Use
Writing		Thinking Skills – Critical Thinking		Continuous Learning
Numeracy	✓	Thinking Skills – Job Task Planning & Organizing		
Oral Communication		Thinking Skills – Significant Use of Memory		
		Thinking Skills – Finding Information		

In order to successfully implement the research plan and optimize use of available resources, the research manager needs well developed thinking skills in problem solving, decision making and job/task planning and organizing.

Language Benchmarks

The majority of communications tasks associated with the required competencies and activities of a competent research manager were found to be between Canadian Language Benchmark levels 9 – 11. This finding is based on a limited sampling of representatives in industry. The actual language benchmark requirements for this occupation within an organization will be subject to the organization's requirements, and the definition of the occupational role within the organization.

Competency Profile

A Research Manager must be able to:

A. Develop the research strategy

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
1. Analyze and assess in-house research capabilities	1.1. Analyze capacities.	
	1.2. Analyze efficiencies.	
	1.3. Identify gaps.	
	1.4. Determine in-house versus external research options.	
2. Assess outsourcing research opportunities	2.1. Screen potential subcontractors.	
	2.2. Compare anticipated outsourcing costs versus own costs.	
	2.3. Conduct cost-benefit analysis.	
	2.4. Evaluate impact of outsourcing on the organization.	
3. Analyze research trends and directions	3.1. Survey literature.	
	3.2. Review secondary data.	
	3.3. Network with peers/colleagues.	
	3.4. Research competitors in terms of research activities, position in the research cycle.	
	3.5. Review latest technologies.	
4. Develop a research strategy that supports company goals and objectives	4.1. Analyze demand.	
	4.2. Conduct gap analysis.	
	4.3. Identify and assess risks.	
	4.4. Develop alternatives.	
	4.5. Evaluate alternatives.	

A Research Manager must be able to:

B. Develop the research plan

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
1. Develop a research plan to implement the approved research strategy	1.1. Execute against timelines.	Corporate Research Strategy, Food and Drug Act (FDA) and Health Canada Regulations, Corporate intellectual property (IP) position
	1.2. Break down strategy into individual research programs/lines of enquiry.	
	1.3. Identify resources needed to implement the research plan.	
	1.4. Estimate requirements for materials, subcontractors, space, equipment, etc.	
	1.5. Develop funding estimate.	
	1.6. Contribute to the business case.	
	1.7. Collaborate to ensure input from all appropriate organizational sources.	
2. Identify key performance indicators and measurement data requirements	2.1. Solicit input on key performance measures.	
	2.2. Determine availability and retrievability of data/information needed to measure performance.	
	2.3. Assess feasibility of potential performance measures in terms of data/information availability.	
	2.4. Ensure that key performance measures (KPMs) are operationalized.	
	2.5. Identify supporting data and information requirements.	

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
	2.6. Implement recommendations for KPMs and ensure incorporation into the proposed research plan.	

A Research Manager must be able to:

C. Implement the research plan

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
1. Implement performance measures	1.1. Update systems/business processes as necessary to support data collection for performance measurement.	
	1.2. Educate staff on data/information collection protocols, as appropriate.	
	1.3. Develop standard template for reporting purposes.	
	1.4. Apply key performance measures.	
2. Action the research plan	2.1. Develop and integrate research program plans.	
	2.2. Monitor reporting criteria.	
	2.3. Meet expectations and timelines.	
	2.4. Understand and support strategy and overall plan.	
	2.5. Implement and monitor the research plan.	
3. Manage issues and risks on a proactive basis	3.1. Identify emerging issues and risks.	
	3.2. Quantify the financial impact of each risk/issue.	
	3.3. Determine probability of occurrence for risks/issues.	
	3.4. Assess impact of potential risk/issue to the research plan and objectives.	
	3.5. Develop mitigation strategies and plans for each emerging risk/issue.	
	3.6. Obtain approval for the developed mitigation strategies.	

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
	3.7. Monitor emerging risks/issues.	
4. Manage budgets and forecasts	4.1. Communicate expectations with regards to budgets and forecasting (funding resources).	
	4.2. Seek input from teams.	
	4.3. Monitor performance to budget and forecast.	
	4.4. Identify and investigate budget/forecast variances.	
5. Evaluate performance to plan	5.1. Review progress reports from each research program.	
	5.2. Evaluate progress and performance to established performance indicators.	
	5.3. Identify gaps.	
	5.4. Assess impact of gaps on research plan/component and related objectives.	
	5.5. Identify appropriate corrective actions.	
	5.6. Develop research plan/research program sub-plans as appropriate.	
	5.7. Implement approved corrective actions.	
	5.8. Update plans as per approvals.	
6. Communicate performance and results to the Executive team	6.1. Provide input into the performance reporting.	

A Research Manager must be able to:

D. Establish outsourcing relationships

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
1. Establish requirements and evaluation criteria	1.1. Define work to be done by subcontractors.	Corporate Research Strategy, FDA and Health Canada Regulations
	1.2. Establish criteria for evaluating and selecting subcontractors.	
2. Review and assess potential subcontractors	2.1. Review subcontractors to participate in research programs.	
	2.2. Identify key subcontractors and initiate contact.	
3. Select subcontractors	3.1. Apply selection criteria to review proposals.	
	3.2. Identify those subcontractors that meet selection criteria.	
	3.3. Prepare request for proposal documentation.	
	3.4. Manage Request for proposal (RFP process).	
	3.5. Interface with selected vendor.	

A Research Manager must be able to:

E. Manage subcontractor relationships

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
1. Monitor subcontractor performance	1.1. Establish reporting schedule and template.	Corporate Research Strategy, Food and Drug Act (FDA) and Health Canada Regulations
	1.2. Review subcontractor performance to contractual requirements/performance indicators.	
	1.3. Discuss areas requiring corrective action with the subcontractor.	
	1.4. Agree on course of corrective actions and expected results.	
2. Manage issues and risks on a proactive basis	2.1. Identify emerging issues and risks.	
	2.2. Determine impact of subcontractor non-compliance on research plan/objectives.	
	2.3. Quantify the financial impact of each risk/issue.	
	2.4. Develop mitigation strategies and plans for each emerging risk/issue.	
	2.5. Maintain productive relationships with subcontractors.	
	2.6. Assess effectiveness of corrective actions.	
3. Pay subcontractors	3.1. Review delivered products/services to contract requirements.	
	3.2. Review invoice for accuracy and completeness to business requirements.	
	3.3. Approve invoices for payment, dependent on established approval criteria.	

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
4. Report on subcontractor performance	4.1. Prepare a report on subcontractor performance to contract requirements.	
	4.2. Outline impact of subcontractor performance on overall research plan and objectives.	
	4.3. Develop options appropriate to subcontractor compliance and impact on research plan.	
	4.4. Present key findings to management.	
	4.5. Obtain approval for planned actions.	
	4.6. Work with the subcontractor to execute planned actions as appropriate.	

A Research Manager must be able to:

F. Advance the research initiative

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
1. Assess research outcomes	1.1. Evaluate research outcomes objectively.	Corporate Research Strategy, Food and Drug Act (FDA) and Health Canada Regulations, Corporate intellectual property (IP) position
	1.2. Conduct due diligence.	
	1.3. Evaluate potential for continued development/commercialization.	
	1.4. Complete a feasibility review.	
	1.5. Seek internal input.	
	1.6. Prepare recommendations and report on moving research outcomes forward in the development process.	
2. Support the regulatory submission process	2.1. Identify registration requirements.	
	2.2. Ensure awareness of regulatory guidelines.	(Good Clinical Practices (GCP) and other terms of references, e.g., Quality assurance (QA), Regulatory affairs (RA), current Good Manufacturing Practices (cGMP))
	2.3. Determine regulatory document requirements for content.	
	2.4. Review associated documents.	
	2.5. Approve associated documents.	
3. Present results to the scientific community	3.1. Respect corporate guidelines re: intellectual property and sensitive business information.	
	3.2. Publish in reputable scientific journals.	
	3.3. Present findings at conferences.	
	3.4. Discuss with members of peer networks.	

A Research Manager must be able to:

G. Provide advisory/expert services

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
1. Provide general advisory services and expertise to the organization	1.1. Maintain networks with other experts in the appropriate field.	
	1.2. Stay current with pertinent legislation and regulations.	
	1.3. Share 'lessons learned' (both positive and negative) from past pre-clinical studies and clinical/field trials.	
	1.4. Communicate leading practices in working to Good Clinical Practice (GCP) requirements.	
	1.5. Update knowledge and understanding by reading scientific/medical journals and attending professional conferences.	
	1.6. Serve as Safety Monitor, dependent on qualifications, as required.	
2. Participate in peer reviews for external publications	2.1. Evaluate content of a proposed publication.	
	2.2. Provide a critique of a proposed publication.	
	2.3. Make suggestions to improve quality/scientific basis of a proposed publication.	
	2.4. Identify overlooked ideas, theories or bodies of knowledge pertinent to the content of a proposed publication.	

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
	2.5. Highlight shortcomings of an proposed publication e.g. incomplete conclusions, faulty logic.	
3. Mentor and coach project team members	3.1. Discuss opportunities for growth with project team members.	
	3.2. Share expert knowledge and experience with the project team members.	
	3.3. Explore avenues available for team member personal and professional growth.	
	3.4. Provide guidance and support to project team members.	
	3.5. Provide contacts and open networks to team members.	
	3.6. Offer positive reinforcement and recognition to team members.	

A Research Manager must be able to:

H. Comply with legislation/regulations

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
1. Understand legislative/regulatory requirements	1.1. Review relevant literature.	Corporate Research Strategy, Relevant industry and regulatory guidelines
	1.2. Analyze prevailing legislations and capture parameters/controls relevant and/or applicable to the research programs.	
	1.3. Document requirements.	
2. Analyze and assess risk exposure	2.1. Identify elements of risk.	
	2.2. Estimate probability of occurrence and impact in the event of occurrence.	
	2.3. Develop a risk management strategy and plan in keeping with estimates.	
3. Develop guidelines to ensure compliance with respect to legislation and regulations	3.1. Identify and promote key objectives.	
	3.2. Oversee development and documentation of the guidelines.	
	3.3. Submit guidelines for approval, as appropriate.	
	3.4. Communicate guidelines to research professionals and staff.	
	3.5. Communicate guidelines to project team members.	
4. Develop learning programs as appropriate	4.1. Determine need for researcher education re: legislative/regulatory requirements and compliance.	
	4.2. Develop learning program based on identified needs.	
	4.3. Implement learning program.	

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
	4.4. Assess effectiveness of the learning program.	
	4.5. Update learning program, as required.	
5. Review procedures, monitoring trends and variances	5.1. Develop monitoring procedure(s).	
	5.2. Review research standard operating procedures (SOPs) protocols and other appropriate documents.	
	5.3. Oversee monitoring.	
	5.4. Review and analyze trends in non-compliance and/or variances to guidelines.	
	5.5. Determine appropriate corrective action(s).	
6. Review reports from authorities and other stakeholders	6.1. Review reported non-compliances.	
	6.2. Assess impact of non-compliances on the research plan and objectives.	
	6.3. Seek corrective action.	
7. Report on identified areas of non-compliance	7.1. Summarize identified non-compliance trends/situations.	
	7.2. Outline proposed corrective actions and anticipated results.	
	7.3. Seek approval for proposed corrective actions.	

A Research Manager must be able to:

I. Comply with corporate policies and guidelines

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
1. Ensure compliance with corporate policies and procedures	1.1. Review corporate policies, procedures, internal audit reports etc.	Corporate Research Strategy, Corporate Policies and Procedures
	1.2. Determine key areas for monitoring.	
	1.3. Develop monitoring framework and procedure(s).	
2. Review compliance to corporate policies/procedures	2.1. Monitor compliance.	
	2.2. Identify situations/instances of non-compliance.	
	2.3. Assess impact of non-compliances on the research plan and objectives.	
3. Respond with appropriate corrective action to identified situations of non-compliance	3.1. Determine appropriate corrective action(s)	
	3.2. Get approval and implement corrective actions	

A Research Manager must be able to:

J. Manage project team members

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
1. Identify development needs	1.1. Identify weaknesses and strengths.	Corporate Human Resources Management Policies and Procedures and Relevant jurisdictional legislation
	1.2. Develop a skill and competency matrix.	
	1.3. Liaise with Human Resources to identify and develop learning programs.	
	1.4. Oversee implementation of the learning programs.	
	1.5. Monitor performance.	
	1.6. Follow up on progress/improvements.	
2. Provide opportunities for continuous learning	2.1. Promote a continuous learning culture.	
	2.2. Provide resources for continuous learning opportunities/initiatives.	
	2.3. Be aware of new trends in learning.	
	2.4. Recognize individuals' efforts and success in continuous learning.	
3. Evaluate performance	3.1. Seek feedback on the performance review process.	
	3.2. Develop key performance criteria.	
	3.3. Develop and utilize a standard review process.	
	3.4. Oversee implementation of the standard review process.	
	3.5. Assess effectiveness of standard review process.	
	3.6. Adjust review process as appropriate.	

A Research Manager must be able to:

K. Demonstrate accepted management capabilities

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
1. Apply accepted management principles and techniques	1.1. Align management and leadership style with the corporate culture and objectives.	Corporate Research Strategy, Corporate Policies and Procedures
	1.2. Ensure that management team uses accepted management principles and techniques.	
	1.3. Create opportunities for information sharing across the management team, e.g. regular meetings, governance structure.	
	1.4. Make sure the organizational procedures and structures are in place to achieve corporate goals.	
	1.5. Ensure the execution of strategies and tactic.	
	1.6. Establish the appropriate controls for evaluating performance.	
2. Plan and implement strategically	2.1. Look forward /anticipate trends that may impact research.	
	2.2. Execute research objectives to achieve organizational goals.	
	2.3. Chair meetings, as required.	
	2.4. Facilitate team planning efforts.	
	2.5. Consider the consequences and future implications of plans and actions.	
	2.6. Recommend actions or options to mitigate or prevent negative consequences.	
	2.7. Develop contingency plans.	
	2.8. Work towards measurable objectives.	

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
	2.9. Promote accountability.	
	2.10. Establish framework for monitoring plans.	
3. Delegate appropriately	3.1. Know strengths and weaknesses of team members.	
	3.2. Set expectations.	
	3.3. Give autonomy.	
	3.4. Allow for personal growth opportunities.	
	3.5. Communicate regularly/frequently.	
4. Influence decisions	4.1. Define the best approach to promote a position.	
	4.2. Articulate the position with clarity.	
	4.3. Understand the positions of the other parties.	
	4.4. Promote the benefits of preferred position.	
	4.5. Identify the shortcoming/drawbacks of the other parties' positions.	
	4.6. Show how preferred position addresses shortcomings in other parties' positions.	
5. Manage risk	5.1. Identify, qualify and quantify risks.	
	5.2. Identify the risk/benefit/cost proposition.	
	5.3. Develop contingency/remedial plans to mitigate risk.	
	5.4. Communicate risks	
	5.5. Identify the need for legal advice/counsel.	
6. Identify and protect intellectual property	6.1. Understand corporate policies, guidelines and procedures pertaining to intellectual property.	

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
	6.2. Determine whether developments are able to be protected (in conjunction with Legal/Intellectual Property staff).	
	6.3. Identify work considered to be intellectual property (in conjunction with Legal/Intellectual Property staff).	
	6.4. Determine whether developments are able to be protected (in conjunction with Legal/Intellectual Property staff).	
	6.5. Implement the necessary actions to protect intellectual property	
	6.6. Monitor to confirm that the necessary steps are being taken regarding protection of intellectual property.	
7. Protect sensitive/confidential information	7.1. Identify those records which meet the definition of sensitive information under the <i>Personal Information Protection and Electronic Documents Act (PIPEDA)</i> .	Protection of personal information legislation (e.g., <i>Personal Information Protection and Electronic Documents Act (PIPEDA)</i>) Protection of confidential information policies and procedures FDA and Health Canada Regulations referencing patient data
	7.2. Assure maintenance of confidentiality of the information.	
	7.3. Communicate confidential information appropriately to those who have a functional 'need to know'.	
	7.4. Store and secure confidential information in observance of applicable laws and company policies/procedures.	
8. Use computers to analyze/manage data and information	8.1. Identify data and information requirements.	

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
	8.2. Use computers to collect, analyze and interpret complex data.	
	8.3. Establish a formal system for computerized data/information collection, storage, access, retrieval, archiving and disposition.	
	8.4. Apply advanced computer skills, including use of MS Word, Excel, PowerPoint.	
	8.5. Use SAS data files and Excel databases to organize data/information.	
	8.6. Use computers to analyze data, generate reports and create presentations, posters and manuscripts.	
9. Establish effective working relationships	9.1. Work effectively with team members and others.	
	9.2. Share current knowledge with new colleagues using an established framework and protocols.	
	9.3. Recognize the skills and abilities of others.	
	9.4. Show respect.	
	9.5. Accept and appreciate different ways of doing things.	
10. Manage work activities	10.1. Utilize responsible practices which contribute to the cost-effective use of resources.	
	10.2. Maximize efficient use of resources (e.g., time, equipment, personnel).	
	10.3. Develop and report against budgets & forecasts.	

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
	10.4. Manage research timelines against established expectations.	
	10.5. Manage risk.	
	10.6. Apply continuous quality improvement techniques and risk management processes.	

A Research Manager must be able to:

L. Apply professional practices

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
1. Comply with corporate, regulatory and legislative policies, requirements, procedures and protocols	1.1. Follow established corporate protocols and procedural documentation (e.g., policies, procedures, standard operating procedures (SOPs)).	Established corporate protocols and procedural documentation (e.g., policies, procedures, standard operating procedures (SOPs)) Protection of personal information legislation (e.g., <i>Personal Information Protection and Electronic Documents Act (PIPEDA)</i>) Protection of confidential information policies and procedures Food and Drug Act (FDA) and Health Canada Regulations referencing patient data
	1.2. Maintain confidentiality (e.g., data, records, intellectual property, client information).	
	1.3. Practice and adhere to leading project management practices.	
	1.4. Practice and adhere to legislative/regulatory requirements.	
	1.5. Comply with all applicable regulations, legislation and Good Practices (GxPs).	
2. Demonstrate project management capabilities	2.1. Manage large and complex projects.	
	2.2. Show financial acumen in the planning and oversight of project budgets and valuations.	
	2.3. Apply understanding of portfolio management concepts.	

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
	2.4. Apply in-depth specialty knowledge to complete projects of diverse scope and complexity.	
3. Demonstrate medical, scientific and research and development (R&D) experience	3.1. Apply knowledge of research settings and protocols as required.	
	3.2. Comply with regulatory authorities on research issues.	
	3.3. Apply scientific principles and concepts to research efforts.	
	3.4. Apply knowledge of global regulatory requirements where appropriate (Food and Drug Act (FDA), International Conference on Harmonization (ICH) etc.).	
	3.5. Use understanding of regulatory statistical requirements to provide statistically sound research design and analysis input to submission documents.	
	3.6. Apply experience working with research data to create study reports submission data summaries and other contributions to regulatory documents.	
4. Ensure staff are knowledgeable of and take appropriate safety measures	4.1. Use appropriate personal protective equipment (e.g., mask, gloves, laboratory coat, etc.).	Workplace Hazard Management Information System (WHMIS) and related federal and provincial legislation
	4.2. Utilize laboratory safety devices in a correct manner (e.g., biological safety cabinets, fume hoods, laminar flow cabinets, safety pipeting devices, safety containers and carriers, safety showers, eye washes).	

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
	4.3. Apply the principles of working with hazardous chemical or biological material regarding reagent preparation, storage and disposal and equipment cleaning and disinfecting (as per Workplace Hazard Management Information System WHMIS and related legislation).	
	4.4. Take the appropriate actions to minimize the potential hazards/dangers related to disinfection/sterilization methods, biological samples, radioactive materials, equipment and laboratory supplies.	
	4.5. Label, date, handle, store, and dispose of chemicals, dyes, reagents and solutions according to Workplace Hazard Management Information System (WHMIS) requirements and existing legislation.	
	4.6. Seek appropriate first-aid treatment by mobilizing emergency response (e.g., external and/or internal response, such as an Emergency Response Team) to respond to incidents such as chemical injury, traumatic injury, electrical shock, burns, radioisotope contamination.	
	4.7. Respond appropriately to fire emergencies.	
	4.8. Report incidents related to safety and personal injury (e.g., needle stick injuries), in a timely manner to management.	
5. Demonstrate professional integrity	5.1. Report findings and results accurately and honestly.	

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
	5.2. Respect confidentiality (e.g., data, records, intellectual property, client information).	
	5.3. Take responsibility for actions and decisions.	
	5.4. Accept accountability for outcomes of actions and decisions.	
	5.5. Maintain high standards in practice.	
	5.6. Apply relevant internationally accepted protocols and practices, regulations, and legislation.	
	5.7. Follow rules and regulations administered by regulatory bodies, such as Health Canada, Agriculture and Agri-Food Canada.	
	5.8. Maintain confidentiality (e.g., data, records, intellectual property, client information).	
	5.9. Demonstrate openness, transparency and fairness.	
	5.10. Show respect for team members, peers and other individuals.	
	5.11. Act with regard to corporate ethics and values.	

A Research Manager must be able to:

M. Demonstrate personal competencies

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
1. Demonstrate leadership	1.1. Look at the big picture.	
	1.2. Focus on goals and objectives.	
	1.3. Demonstrate commitment.	
	1.4. Promote and demonstrate ethical behaviour and integrity.	
	1.5. Show and promote mutual respect.	
	1.6. Promote trust and honesty.	
	1.7. Set an example.	
	1.8. Accept accountability.	
2. Set priorities	2.1. Reference critical information when setting priorities.	
	2.2. Establish criteria such as risk, time-sensitivity, investment required, etc. to facilitate priority setting.	
	2.3. Consider available resources and redistribute work/assignments, as appropriate.	
	2.4. Maintain awareness of time-sensitive issues and critical deadlines.	
	2.5. Keep goals and objectives in mind.	
	2.6. Multi-task where possible and practical.	
	2.7. Communicate priorities to team members/relevant personnel.	
3. Organize work	3.1. Think ahead and anticipate.	
	3.2. Demonstrate effective time management.	
	3.3. Set priorities and objectives.	

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
	3.4. Identify and manage resources needed to complete work.	
	3.5. Establish processes/systems/methodologies to enhance effectiveness.	
	3.6. Determine the information/data to be collected.	
	3.7. Recognize where templates and standard forms would facilitate data and information management.	
4. Build networks internally and externally	4.1. Communicate well, clearly, and in a timely manner.	
	4.2. Listen.	
	4.3. Ensure awareness of differences, treating everyone fairly/equitably and accommodate to special needs.	
	4.4. Recognize the skills and abilities of others.	
	4.5. Use various approaches in response to different individual styles.	
5. Solve problems	5.1. Identify the problem.	
	5.2. Identify the causes of the problem.	
	5.3. Understand the science or the technology relevant to the problem or issue.	
	5.4. Involve experts and professionals in the problem-solving exercise.	
	5.5. Consider options for resolution.	
	5.6. Determine the appropriate course of action.	
	5.7. Oversee implementation of solutions.	

TASKS	SUBTASKS	IMPORTANT ACTIONS / PERFORMANCE STANDARDS
	5.8. Assess the effectiveness of the selected course of action.	
6. Communicate clearly and effectively	6.1. Demonstrate an ability to clearly articulate complex issues orally and in writing.	
	6.2. Explain point of view clearly and concisely.	
	6.3. Deliver and adapt message for appropriate audiences.	
	6.4. Use appropriate terminology.	
	6.5. Translate, simplify and explain terms when speaking with parties who may not be familiar with the terminology.	
7. Embrace continuous learning and development	7.1. Allocate time for continuous learning.	
	7.2. Identify opportunities for continuous learning e.g. business management.	
	7.3. Build on 'lessons learned' from past research efforts.	
	7.4. Keep abreast of relevant science and technology.	
	7.5. Nurture the ability and enthusiasm to learn new skills and techniques.	

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