



## Research Scientist

A **Research Scientist** identifies potential research opportunities, plans and conducts experiments to increase the body of scientific knowledge and/or develops new, or improves existing, drugs, treatments or other science or medically related products. Research may be basic, such as investigating the underlying basis of health and disease, or it may be more applied such as medical devices, genetic research, conducting clinical research in support of clinical trials, investigating methods of prevention, diagnosis and treatment of human disorders. Research scientists also need to stay current with other research being carried out in, or related to, their field of study. This involves carrying out searches for information using the Internet and information databases, reading relevant scientific literature and journals and attending scientific meetings and conferences.

**Learn more about the role of a Research Scientist by downloading the full skills profile for free at [www.biotalent.ca/profiles](http://www.biotalent.ca/profiles).**



# Research Scientist



## BioTalent Canada's Bio-economy Skills Profiles

Biotechnology's fusion of science and business creates unique requirements for jobs in the sector. Candidates often need skills suited both to the lab and the boardroom. As a result, occupational descriptions from other sources or sectors don't always fit the bio-economy exactly. That's why, in partnership with industry stakeholders, BioTalent Canada has developed skills profiles specific to the bio-economy—a project that will continue with the ongoing addition of other functions over time.

Each profile includes a definition of the occupation, a list of competencies and associated tasks, a summary situational analysis, language benchmarks, and essential skills.

## Who can use these profiles?

**Easy to use and interpret, our *Bio-economy Skills Profiles* were created to meet the needs of a wide range of audiences. Here's how you might use them if you're an:**

**Employer:** Develop job descriptions, performance evaluation criteria, professional development programs, succession plans, team building initiatives and recruitment plans.

**Job seeker:** Identify your professional development needs, tailor your resume for a specific position, prepare for interviews and interpret job descriptions.

**Educator:** Build industry-oriented curricula to help produce job-ready graduates.

**Student:** Grow your understanding of employers' expectations and choose the right educational programs to equip yourself with the skills for success.

## Validated by industry

BioTalent Canada created its *Bio-economy Skills Profiles* in consultation with industry to accurately capture the needs of biotechnology companies and produce truly practical, relevant resources. These profiles summarize the high-level skills required for each occupational profile and itemize in detail the common tasks associated with each function. Because the profiles are comprehensive, not every skill may be required for a single position: instead, the profiles present the full sets of skills that could be expected of a person in a given role within companies at various stages of development.

## Information you can trust

BioTalent Canada is the country's source for reliable, objective and accurate information on skills development and human resources in the bio-economy. Our aim as Canada's biotechnology sector council is to deliver the human resources tools, information and skills development resources industry needs to ensure an adequate supply of job-ready people.

## Understanding the bio-economy

Canada's bio-economy is engaged in the research, development, commercialization and manufacturing of biotechnology products. The bio-economy is constantly expanding as new technologies and techniques are applied to an ever-broader range of industries and sectors including:

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

## Get started today

Even before you download the full **Research Scientist** Skills Profile, get a sense of the information it contains and how you might use it in your work. Attached here is a quick-reference checklist that summarizes the core skills required for the position and the common tasks associated.



**Go to [www.biotalent.ca/profiles](http://www.biotalent.ca/profiles) and download the complete Research Scientist Skills Profile.**

## Bio-economy Competency Profile Checklist

**Graduate-level post-secondary education and experience using molecules to create new—or enhance existing—products** are hallmarks of a Research Scientist. Some Research Scientists are recruited by bio-economy firms while in the process of earning their doctorates.

Building on these, a **Research Scientist** must be able to:

### A. Develop a research hypothesis

- 1. Identify potential research areas appropriate to company goals and objectives
- 2. Analyze research trends and directions
- 3. Develop a research hypothesis
- 4. Assess hypothesis from a business perspective

### B. Develop the research plan

- 1. Develop a scientific research plan
- 2. Develop key performance indicators
- 3. Develop a research plan for the initiative



### C. Execute the research plan

- 1. Secure funding for the research plan
- 2. Organize to support the research plan
- 3. Complete the research
- 4. Analyze data and interpret results
- 5. Report findings

### D. Manage research activities

- 1. Manage issues and risks on a proactive basis
- 2. Evaluate performance to research plan

### E. Advance the research agenda

- 1. Assess research outcomes
- 2. Contribute to the registration dossier
- 3. Identify and protect intellectual property
- 4. Present results to the scientific community

### F. Demonstrate accepted management capabilities

- 1. Apply accepted management principles and techniques
- 2. Comply with all applicable regulations and legislation
- 3. Develop and report against budgets and forecasts
- 4. Manage research timelines against established expectations
- 5. Delegate
- 6. Manage risk

### G. Supervise research team members

- 1. Recruit team members
- 2. Assign work and responsibilities
- 3. Identify team member development needs
- 4. Evaluate team member performance
- 5. Address other human resource (HR) responsibilities

### H. Manage operations of the research laboratory

- 1. Obtain appropriate licenses
- 2. Secure appropriate service contracts
- 3. Determine purchasing procedures
- 4. Ensure proper training and usage of equipment

### I. Manage subcontractor relationships

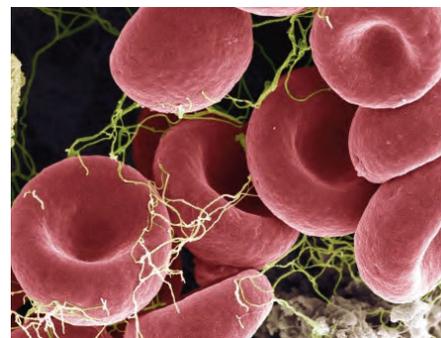
- 1. Monitor subcontractor performance
- 2. Administer contracts
- 3. Report on subcontractor performance

### J. Manage relationship(s) with other stakeholders

- 1. Establish internal stakeholder relationships/networks
- 2. Establish external stakeholder relationships/networks
- 3. Maintain networks/relationships with stakeholders

### K. Provide expert/advisory services

- 1. Serve as an in-house consultant
- 2. Demonstrate scientific/medical expertise
- 3. Maintain and enhance knowledge and understanding of scientific research
- 4. Mentor and coach peers and the management team
- 5. Assume the role as the 'scientific face' of the organization



### L. Demonstrate personal competencies

- 1. Demonstrate leadership
- 2. Demonstrate personal integrity
- 3. Manage data and information
- 4. Demonstrate critical thinking/problem solving
- 5. Set priorities
- 6. Build networks internally and externally
- 7. Communicate well and clearly
- 8. Embrace continuous learning

