RESEARCH ASSOCIATE II - GRADE 8

Generic Position Overview

**Family:** Natural and Applied Science

**Cluster:** (NAS8) Research Associate II

**Note:** Employees of Queen's University work in a challenging and diverse environment. Queen's is committed to encouraging the development of new skills and attributes in its workforce. It is critical that staff are able to adapt to a changing work environment and to acquire new skills as these become necessary.

Depending upon the size of the department or unit and its functional activities, incumbents who fall into this category may perform all of the duties listed below or, in the case of large departments or units, may be assigned to designated specialized functions.

**Generic Position Summary:** The incumbent designs and implements a research plan, independently developing experimental approaches and adapting techniques and protocols as required. Observe, record, analyse and present results, including contributing to, co-authoring, or authoring papers. May work with hazardous materials, animals, or equipment. Liaise with outside agencies and consult other researchers in the field in order to share information and collaborate efforts. Supervise staff and students, provide advice and guidance as required. Monitor safety and conduct training seminars. Ensure compliance with ethical and safety guidelines. Incumbent may perform some administrative duties and ensure physical maintenance of lab and equipment. May participate in other special projects depending upon the nature of the position.

**Primary Duties And Responsibilities:** Carry out a research plan and perform experiments, in which broad objectives are defined by the supervisor, but experimental approaches are developed largely by the incumbent. Advanced techniques, procedures and protocols are prepared using scientific methods and personal judgement in order to adapt procedures as required to meet the needs of the project. Observe and record results. May entail working with hazardous materials, animals, or equipment.

Prepare results for presentation. Provide computerization and statistical analysis of research data for Principal Investigator. Contribute to, co-author, or author papers, or be co-named on patents. Prepare visual and verbal presentations, and participate in lab meetings and conferences. May be required to design and write computer programs for data analysis.

Obtain ideas and information by acting as liaison to outside agencies and colleagues. Read current literature and consult with experts. Communicate results in order to foster collaborative research efforts.
Supervise staff and students and provide consultation or advice on specialized procedures. Monitor safety and conduct training sessions in order to instruct others in proper use of equipment and materials.

Perform some administrative duties, such as preparing ethics and consent forms (clinical trials labs). Recruit and screen subjects, organize and schedule test visits and procedures, dispense investigative drugs and take measurements. Enter data into computer for analysis and output as required. Order supplies and perform some equipment maintenance when necessary and possible. May monitor budget or perform some account administration.

Undertake other duties or special projects as required in support of the unit or department.

Required Background: Masters or PhD in a relevant field, with several years of experience in a related area. Some positions may require nursing certification. Safety-related training will be provided on-the-job. Consideration will be given to an equivalent combination of education and experience.

**Special Skills:** Typical skills that *may* be required in the performance of job duties include:

Skill in performance of experiments and analysis of results. Resourcefulness and meticulous attention to detail. Statistical and mathematical skills to aid in high-level analysis using theorems from calculus, linear algebra, etc. Appropriate handling of specimens and dangerous materials, animals and equipment (in accordance with safety and ethical guidelines).

Judgement and initiative in order to design a new and novel way of solving a problem or choose the best protocol for performing an experiment.

Technical/scientific writing skills, and communication skills in order to facilitate information sharing between lab and outside organizations.

Computer skills. Some positions may require ability to design and write analysis programs.

Supervisory and leadership skills to provide direction and instruction to staff and students. Allocate time and resources, and coordinate workflow.

**Decision Making:** Examples of the types of decisions regularly made on the job:

Determine experimental approaches and techniques. Decide how to optimize protocols to get most accurate results. Adapt procedures to solve research problems or to gain new perspective.

Respond to inquiries from the public and other researchers and determine where to redirect inquiries if required.
Determine how to allocate work to various staff and who is capable of performing a given procedure.

Draft scientific publications (reports or manuscripts).

Determine design of new experimental apparatus. Determine which equipment needs to be repaired, replaced or acquired as necessary.

Determine whether a particular procedure falls within ethical guidelines, and make concessions and adjustments as necessary and possible.

Determine appropriate way to dispose of hazardous wastes within safety guidelines and react in an emergency situation to minimize damage and avoid risk.

Make recommendations regarding the lab budget and allocation of resources.

**Supervisory Responsibilities:** Supervisory duties may include delegating work, hiring/firing, and conducting performance appraisals.

*Last update: December, 1999*