

MASSACHUSETTS GENERAL HOSPITAL JOB DESCRIPTION

Position: Veterinary Technician I – Humanized Mouse Model Program
Job code/grade:
Supervisor: Vladimir Vrbanac, DVM
Flsa status:

GENERAL SUMMARY/ OVERVIEW STATEMENT: Summarize the nature and level of work performed.

The humanized mouse model is one of the fastest-growing models in vivo research today. Mouse models have been instrumental in investigations of many areas of immunology and infectious diseases, but the ability of mice to provide a model of HIV infection has been limited. Our laboratory has developed an improved humanized mouse model of HIV infection, which will make possible for the first time many essential and exciting studies of HIV biology in vivo. We will be using this model in investigations of HIV pathogenesis and vaccine development, as well as making it available to other member laboratories of either the Ragon Institute of MGH, MIT and Harvard, or the Harvard University Center for AIDS Research (HU CFAR) and with our US and international collaborators.

Our lab is devoted to spreading the humanized immune system mice beyond the HIV sphere into immuno-oncology, parasitology, transplantational and other fields.

Working closely with the Program Director, Dr. Vladimir Vrbanac, the individual hired will be involved in the daily operations of this new Humanized Mouse Model Program. She or he will have some administrative responsibilities. Still, she or he will predominantly have technical responsibilities for generating the humanized mice, performing experiments using them, and being involved in the bench-related experiments.

The position is perfect for someone interested in learning about the basics of surgery and anesthesiology.

PRINCIPAL DUTIES AND RESPONSIBILITIES: Indicate key areas of responsibility, major job duties, special projects and key objectives for this position. These items should be evaluated throughout the year and included in the written annual evaluation.

Technical responsibilities will include:

1. Generation of humanized mice for our laboratory and the various experimental projects supported by the program. This part consists of preparing the animal for the surgery, controlling anesthesia during surgery, closing surgical sounds, and re-animating the animals after the surgery.
2. Bleeding and flow cytometry of peripheral blood leukocytes of these humanized mice to characterize their human immune reconstitution before use in experiments.
3. Contributing ideas and suggestions for improvements in existing experimental protocols and techniques and participating in the development and investigation of new procedures, assays, and/or instrumentation.
4. Participating in preparing data from our studies for presentation and publication.

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5. Helping in the bench-related part of the experiments – PCR, cell culture, etc.

Administrative responsibilities will include:

1. Computerized record-keeping for the humanized mice generated and used for various experimental projects supported by the program.
2. Ordering mice and supplies required for the program's operations and record-keeping of mouse and supply inventories and expenses.

QUALIFICATIONS: (MUST be realistic, neither overstated nor understated, and related to the essential functions of the job.)

B.S or B.A in Biology, focusing on Microbiology, Immunology, Molecular Biology, or Animal Biology, or equivalent coursework required.

Administrative responsibilities will require knowledge of Microsoft Excel and Word applications. Familiarity with small animal work, cellular biology laboratory techniques, and flow cytometry will be beneficial for the technical responsibilities. Still, training in these and other methods will be provided, including procedures for the safe handling of HIV and HIV-infected mice.

SKILLS/ ABILITIES/ COMPETENCIES REQUIRED: (MUST be realistic, neither overstated nor understated, and related to the essential functions of the job.)

1. Excellent laboratory procedure skills. Surgical skills would be helpful, but training will be provided.
2. Ability to work with the mice.
3. Excellent oral and written skills.
4. Ability to work in both independently and in team-effort situations.
5. Demonstrated organizational skills.
6. Dependability and excellent work habits.
7. Excellent personal computer and database skills.
8. Ability to work on Saturdays and after 5 PM as needed on days when surgery is scheduled.

WORKING CONDITIONS: Describe the conditions in which the work is performed.

Work will be performed in the laboratory space of the Ragon Institute, 400 Technology Sq, Cambridge, MA. There will be extensive work with mice, which will involve exposure to mouse dander, wastes, bodily fluids and dust in working with the humanized mice. Position will include work with HIV and HIV-infected mice, for which training for safe handling will be provided.

SUPERVISORY RESPONSIBILITY: List the number of FTEs supervised.

None.

FISCAL RESPONSIBILITY: Indicate financial “scope” information, i.e.: size of budget, volume, revenue, etc.

(NAME)
 Department Mgr. ___ Vladimir Vrbanac ___ Title: ___ Program Director ___ Date: _____

(NAME)

Other, As Appropriate _____ Title: _____ Date: _____

The above is intended to describe the general contents and requirements of work being performed by people assigned to this classification. It is not intended to be construed as an exhaustive statement of all duties, responsibilities or skills of personnel so classified.