M.Sc. Position
FACULTÉ DE MÉDECINE VÉTÉRINAIRE,
UNIVERSITÉ DE MONTRÉAL (Saint-Hyacinthe)

Dr. Mariela Segura
PhD, Immunologist
Laboratory of Immunology
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Saint-Hyacinthe, Québec, Canada

Dr. René Roy
PhD, Chemist
Director of PharmaQÀM
Department of Chemistry
Université de Québec à Montréal (UQAM)
Montréal, Québec, Canada

Immunology of infectious disease and vaccine development

The candidate will be involved in research projects of the Laboratory of Immunology (St-Hyacinthe campus) under the supervision of Dr. Mariela Segura and the co-supervision of Dr. René Roy.

Only candidates with Canadian citizenship or permanent Canadian residents or French citizenship will be considered. Under cooperation agreements between Quebec and France, French students are exempt and pay the same tuition fees as Québec students for graduate studies.

Deadline: 30 March 2016. However, late applications can be considered on a rolling basis.

To submit your application: Please send your C.V., copies of grade transcripts, a presentation letter, and two references to the following address: mariela.segura@umontreal.ca

Project description: The student will be involved in aspects related to vaccine development and underlying immunological mechanisms. The proposed project focuses on the use of nanocarriers to improve antigen immunogenicity. Our model pathogen is *Streptococcus suis*, one of the most important bacterial pathogens in pigs and an emerging zoonotic agent of meningitis and septicemia. The applicant will perform *in vitro*, *ex vivo* and *in vivo* experiments after immunization using mouse models. Thus, he will need to learn and use different laboratory techniques such as: cell culture/purification, bacterial culture, ELISA, FACS, immuno-fluorescence, and mouse immunization. Several biochemistry techniques will be also required and will be performed under the supervision of Dr. Roy (UQAM). The project will thus provide a highly-competitive multidisciplinary training to the student.

Salary: Grants ranging from 16,000$ to 18,000$ will be offered to the applicant based on diplomas and past laboratory experience.

Requirements: MSc applicants need to possess a minimum of an undergraduate diploma and/or an equivalent, as per University of Montreal’s standards. All diplomas and/or equivalents must be in a specialized field such as: microbiology, immunology, biochemistry, or other related fields.

Research project is funded by: Canadian Glycomics Network (GlycoNet). Additional funding is provided by Natural Sciences and Engineering Research Council of Canada (NSERC), and Le Fonds de recherche du Québec – Nature et technologies (FRQNT).

Comment: Although the laboratory is located in a French environment, French language is not mandatory if the candidate is fluent in English.

Recent scientific publications related to research interests (selected list):