

Post Doc Opportunities (Fall 2014)

Program	Research project(s)
Agricultural Economics	Economics and pricing of maritime transportation
Animal and Poultry Science	Response of Feed Molecular Structure to Processing in Relation to Nutrient Utilization and Availability in Animals
Anthropology	Culture and Mental Health
Anthropology	Indigenous Peoples and Environment
Biochemistry	Cancer biology and genomics
Biochemistry	Structural and functional study of helicases linked to cancers
Biology	Evolutionary ecology of wild mammal populations
Biology	Plant Systematics, Plant Reproductive Biology
Biology	Neural control of insect flight
Biomedical Engineering	Development of portable MRI technology
Biomedical Engineering	Mechanical-chemical interaction on biological systems
Biomedical Engineering	Computational Systems Biology
Chemical and Biological Engineering	Catalysis and Chemical Reaction Engineering
Chemical Engineering	Environmental catalysis
Chemical Engineering	Fluidized bed drying; biomass gasification
Chemical Engineering	Environment control of animal barns, greenhouses, industrial buildings
Chemistry	Biodegradable polymers, gold chemistry, homogeneous catalysis
Chemistry	Organocatalysis, organic synthesis
Chemistry	Design of Nanoparticle Catalysts; X-ray Absorption Spectroscopy at CLS; Nanoparticle Catalysis in Ionic Liquid Solvents
Chemistry	Physical Chemistry, Environmental Science, Polymers, Adsorption Phenomena, Materials Science
Chemistry	Spectroscopy and photovoltaics
Civil Engineering	Experimental investigations related to reinforced concrete and masonry members and structures
Community and Population Health Sciences	Environments (built, physical, social, cultural) and child health
Community and Population Health Sciences	Tuberculosis control

Program	Research project(s)
Computer Science	JIT and web-based languages (JavaScript); Formal Software Validation: especially Coq; language semantics and modularity (Aspect-Oriented Programming)
Computer Science	Genomics, bioinformatics, hci, cloud computing
Computer Science	Mobile Computing, Cloud Computing, Internet of Things (IOT)
Computer Science	Scientific computing
Electrical Engineering	Computer engineering, computer architecture, computer arithmetic, biomedical engineering
Finance	Emergency room/ward optimization; robust scheduling optimization
Finance	The intraday option price movements
Food Science	Biosynthesis of bioactive compounds in plant or microorganism
Food Science	1. Food protein-polysaccharide interactions, 2. Extrusion, 3. Protein modification
Food Science	Quality of lamb meat, meat processing and oxidative stability, chicken meat quality
Geological Sciences	1. Mineral deposits, 2. EPR/ESR spectroscopy, 3. first-principles calculations of minerals, 4. speciation of heavy metals and radionuclides in minerals
Global Institute for Water Security	Water Security: Climate Change, Land-use Management, Sustainable Development of Natural Resources, Socio-hydrology, Water and Health, Water and Wastewater Treatment, and Groundwater and Hydrogeology
Health Sciences	Neural prostheses, EMG signal analysis, spinal cord occlusion
Indigenous Land Management Institute	Wildlife research at the interface with agriculture, including disease risk, GIS spatial mapping, and risk management
Kinesiology	Balance control in walking
Kinesiology	Exercise physiology, aging, physical activity and muscle/bone health, metabolic syndrome, diabetes
Mathematics and Statistics	Operator evolution equations, nonlocal quantum dynamics, composite quantum systems
Mechanical Engineering	Relating to nanostructured thin films/coatings and carbon based nanostructures
Mechanical Engineering	Automation of robots, Mechanics and vibration, FEA
Mechanical Engineering	Machine vision and image analysis in plant and animal systems; modelling light interaction in plant canopies; spectroscopy

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Mechanical Engineering	Scaffold Bio-Fabrication, Tissue Engineering, Mechatronics, and Nano-Positioning
Microbiology and Immunology	1. characterization of hyperactive Borrelia telomere resolvase mutants 2. investigation of a possible role for the Borrelia telomere resolvase in VlsE antigenic variation
Nursing	I Philosophy, Ethics, Interprofessional Collaboration, Education and Practice
Pharmacology	Signaling mechanisms in leukocyte recruitment
Pharmacy	Targeted nanoparticles for chemotherapy
Physics and Engineering Physics	Development of high efficiency organic-inorganic hybrid solar cells; Graphene electronics through band-gap engineering; Spin-based transistors and memory devices based on organic semiconductors
Physics and Engineering Physics	Theoretical Plasma Physics, Space Plasmas, Magnetic Fusion, Computational Plasma Physics, Plasma Sources, Electric Propulsion
Physics and Engineering Physics	Plasma Physics and Controlled Thermonuclear Fusion
Physics and Engineering Physics	Theoretical particle physics
Physics and Engineering Physics	Materials Science with synchrotron radiation
Plant Sciences	Breeding, Genetics and Genomics of Chickpea (Cicer arietinum)
Psychiatry	Neuropharmacology, neurochemistry, behavior neuroscience
Psychology	Spatial cognition, Molecular biology of age-related spatial degeneration, spatial memory of food-storing birds, invertebrate spatial learning, age-related issues in human spatial cognition
Public Policy	Co-operatives, social economy organizations, producer organizations, governance
Public Health	Health Policy, Health Economics, Health Program Evaluation
School of Environment and Sustainability	Forest-stream interactions in headwater catchments; Isotope hydrology; watershed modeling
School of Environment and Sustainability	Understanding and predicting harmful algal blooms
School of Environment and Sustainability	Environmental impact assessment; energy development and policy; impact of mining on communities; watershed planning; environmental policy
Toxicology	Wildlife conservation physiology, aquatic toxicology
Toxicology	Toxicology, environmental chemistry

Program	Research project(s)
Vaccinology and Immunotherapeutics	Molecular biology of hepatitis B and hepatitis C viruses
Vaccinology and Immunotherapeutics	Non human adenoviruses
Vaccinology and Immunotherapeutics	Cancer Immunotherapy and vaccine development
Veterinary Biomedical Sciences	Structural and functional characterization of proteins implicated in psychiatric diseases. Understanding the neural basis of courtship behaviour in <i>Drosophila</i>
Veterinary Biomedical Sciences	Bovine reproduction, ovarian follicle development, in vitro fertilization and embryo culture, superovulation, effect of ergot on cow and bull fertility, control of GnRH release from hypothalamus
Veterinary Biomedical Sciences	Advanced reproductive technologies, reproductive physiology and endocrinology, testis stem cells, transgenic animals
Veterinary Biomedical Sciences	1. Reproductive technologies in wild ungulates 2. Ovarian synchronization in cattle
Veterinary Biomedical Sciences	The role of small stress proteins in uterine smooth muscle function during pregnancy (Reproductive Health)
Veterinary Microbiology, Vaccinology and Immunotherapeutics	Interaction between pathogenic bacteria and their hosts; bacterial vaccine development; food safety; water safety