

# Renuka Ganger

Brampton, ON L6P 3S3

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Doctorate of philosophy in Biophysics

Over Eight years of experience in handling and boarding mouse models

Administered SC, IP injections to rat and mouse models and knowledge of dermal, IV and oral exposure to rodents.

Drawn and preserved blood, samples from rabbit, rats and mice

Isolated organs from rats and mice after administration of required agents

Preserved various biological tissues at required temperatures (-20 °C and/or -80°C)

Trained colleagues in the animal and experimental work

Knowledge of SPSS, ANOVA, and IMAGE J softwares

Willing to relocate to: prince edward island - manitoba - Toronto, ON

## WORK EXPERIENCE

### **Quality Assurance Technician**

Maple Leaf Foods - Mississauga, ON -

2016-06 - 2016-10

Co op Student)

Grinded different in-process meat samples and finished products for further analysis

Analysed nitrite content in meat samples both qualitatively and quantitatively

Analysed protein, fat and moisture contents in meat samples using FOS scan

Determined salt, sodium nitrite and sodium erythorbate contents in pickle samples

Recorded data for in-process samples and finished products on a lab logbook

Segregated, recorded data and opened incubation sample cans for checking deviations in finished meat products if any

Entered data for in-process samples in Excel

Calibrated spectrometer, pH meter, scale and other equipment routinely

Followed SOPs, GMPs and GLPs

Prepared different reagent solutions for daily usage

Visited the production plant daily by following GMPs to check manufacturing of meat products and labelling of packaged products

Assisted lab colleagues when needed

Performed other duties as assigned

### **Medical Office Assistant**

DOCTORS CLINIC - Brampton, ON -

2016-06 - 2016-08

### **Department of Biophysics (Project Associate)**

UGC-DAE, Panjab University - IN -

2009 - 2010

Standardized protocol for isolation of metallothionein using gel filtration column and ion exchange chromatography

Immunized rabbits to generate polyclonal antibodies

Prepared liver samples by hydraulic press and estimated metal content using PIXE

## EDUCATION

### **Training program in ECG/EKG**

Springfield college - Brampton, ON

2017-10 - 2017-10

### **DIPLOMA in PHLEBOTOMY**

SPRINGFIELD COLLEGE - Brampton, ON

2017-10 - 2017-10

### **Doctor of Philosophy in Philosophy**

Panjab University

2009-11 - 2015-10

### **MS (Hns) in Biophysics**

Panjab University - India

2007-07 - 2009-07

### **BSc (Hns) in Biophysics**

Panjab University - India

2004-07 - 2007-07

## SKILLS

gel filtration column chromatography, ion exchange chromatography

## LINKS

<https://www.linkedin.com/in/reuka-ganger-600b5b27/>

## PUBLICATIONS

**Protective Effects of Zinc Against Acute Arsenic Toxicity by Regulating Antioxidant Defense System and Cumulative Metallothionein Expression.**

<https://www.ncbi.nlm.nih.gov/pubmed/26113309>

**Metallothionein does not sequester arsenic(III) ions in condition of acute arsenic toxicity.**

<https://www.ncbi.nlm.nih.gov/pubmed/27523482>

**Metal stoichiometry of isolated and arsenic substituted metallothionein: PIXE and ESI-MS study.**

#### ADDITIONAL INFORMATION

#### TECHNICAL SKILLS

Biophysical Techniques: Electrochemical impedance spectroscopy, UV spectrometry, Particle induced X- ray Emission spectroscopy (PIXE)

Molecular Biology Techniques: Gel-filtration column chromatography, Ion exchange chromatography, SDS-PAGE, Lowry Method, Bradford method, Western Blotting, Hemotoxylin and Eosin staining, RNA isolation, DNA isolation, Gel Electrophoresis, Reverse-Transcriptase PCR, antioxidant defense system enzyme tests

#### PhD THESIS WORK

Thesis Title: Zinc- Metallothionein fractionation, Its Modulatory role in arsenic supplemented male rats and possible application as biosensor. The work included:

Elucidated the protective potential of zinc (Zn), if any, on the liver functions of arsenic (As) substituted rats by addressing the lipid peroxidation, antioxidant defense system, liver toxicity marker and liver histoarchitecture.

Examined the protective role of MT induced after metal (Zn) supplementation, the gel filtration column chromatography and ion exchange chromatography was performed in rat liver cytosolic fraction to isolate the MT.

Immunized the rabbit with isolated MT to obtain polyclonal antisera which was further used to see the MT levels in different metal supplemented groups.

Carried out the pilot investigations to develop and to characterize an impedimetric immunosensor for MT.

#### ADDITIONAL SKILLS AND STRENGTHS

Intermediate knowledge of Word, Excel and PowerPoint

Ability to work under pressure, willingness to work hard and to meet deadlines

Strong organizational, multitasking and time management skills

Ability to work in a team as well as independently