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EDUCATION AND QUALIFICATIONS

July 2015 to June 2017 Master's Degree in Medical Cell Biology, Department of Biomedicine, Faculty of Medicine, University of Bergen, Bergen, Norway
Dissertation: *Axl Inhibition Enhances the Sensitivity of BRAF-mutant Melanoma to Vemurafenib*. Grade: B+
Supervisors: Prof. James Lorens, Prof. Niels Aarsæther

Sep 2010 to June 2013 BSc.(Hons) Biomedical Sciences, Anglia Ruskin University, Cambridge, U.K.
Dissertation: *Cellular Metastasis of Hepatocellular Carcinoma* (First class honours)
Supervisor: Dr. Peter Coussons

RESEARCH EXPERIENCE

Master's thesis (Aug 2016-June 2017, University of Bergen)

I studied the effect of Axl (a receptor tyrosine kinase) inhibition with BGB324 in *BRAF*-mutant melanoma. I also employed CRISPR-Cas9 technique to knockout *AXL* gene in *BRAF*-mutant melanoma cells to study its role in melanoma targeted therapy resistance. Furthermore, I studied vitamin K dependent γ carboxylation and its effect on Gas6/Axl signalling. The techniques I employed in this project included cell-based assays, PCR and RT-qPCR, western blot, CRISPR-Cas9 transfection, fluorescence microscopy and FACS.

Master's mini project (Sep 2015-Dec 2015, University of Bergen, Norway)

I studied the effects of a cholesterol reducing drug, beta-sitosterol, in different cancer cell lines. The aim of this project was to understand the mechanism by which beta-sitosterol exhibits its growth inhibitory effect in cancer cells. The techniques I employed to carry out this project included cell culture, western blot, cell viability assays and fluorescence microscopy.

Undergraduate project (Aug 2012-Feb 2013, Anglia Ruskin University, UK)

I completed an undergraduate project in the university cellular and molecular pathology laboratory where I studied metastasis of liver cancer *in vitro*. During this time, I became competent in some of the key scientific skills, including tissue culture and cell invasion assay. Furthermore, I demonstrated the ability to carry out independent research work and experiments.

PROFESSIONAL MEMBERSHIP

Student member of the Institute of Biomedical science (IBMS), UK

PROFESSIONAL TRAINING

- ❖ Aug 2016: Certified for the completion of Animal Science Course; University of Bergen, Norway.
- ❖ Aug 2016: Summer school in current techniques in drug development; University of Turku, Finland.
- ❖ Aug 2014 to Sep 2014: Summer school with 4 weeks training (lab rotation) in infection, immunity, cancer and regeneration; Hanover Biomedical Research School, Germany, (6 ECTS credits, funded by DAAD).
- ❖ Dec 2012 to Feb 2013: Certified for the completion of hands on training in molecular biology techniques including extraction, amplification and electrophoresis of DNA/RNA samples, restriction digestion, ligation of DNA fragments, short term lymphocyte culture, karyotyping; Kathmandu Centre for Genomics and Research Laboratory, Nepal.

WORK EXPERIENCE

Dec 2013 to Jan 2015 Medical laboratory assistant, Motherland hospital, Kathmandu, Nepal

Work under the supervision of medical doctors and specialist biomedical scientists. The responsibilities included sorting specimens, transporting and receiving specimens, and performing limited testing procedures such as urinalysis, blood analysis and loading analysers.

PUBLICATIONS

- ❖ Aflatoxin and liver cancer: an association with food contamination, 2013, Biomedical Scientist, a monthly subscription by the Institute of Biomedical Science (IBMS), UK.
- ❖ T helper 17 cells: roles in the pathogenesis of rheumatoid arthritis, 2013, Biomedical Scientist, the Institute of Biomedical Science (IBMS), UK.

PRACTICAL/SCIENTIFIC SKILLS

PCR, RT-PCR, qPCR, ELISA, enzyme and cell assays, toxicity assays, electrophoresis and western blot, cell sorting and flow cytometry, CRISPR-Cas9 cell transfection by neon system and lipofectamine, bacterial transformation and plasmid course in laboratory animal science

COMPUTING AND DATA HANDLING SKILLS

GraphPad Prism, Microsoft Office, Basic bioinformatics skills

SCHOLARSHIPS, AWARDS AND PRIZES

- ❖ DAAD scholarship for summer research training in Hanover biomedical research school, Germany.
- ❖ Anglia Ruskin University international scholarship and award from the university's faculty for achieving first class honours degree.

REFERENCES

Prof. James Lorens (Master's project supervisor) Jim.Lorens@uib.no

Prof. Niels Aarsæther (Master's project supervisor) Niels.Aarsaether@uib.no

Dr. Peter Coussons (Undergraduate project supervisor) Peter.Coussons@anglia.ac.uk