

Katherine Coffin Delgado

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EDUCATION

LEWIS & CLARK COLLEGE

B.A., Biology

Portland, OR

May 2017

RESEARCH EXPERIENCE

OREGON HEALTH & SCIENCE UNIVERSITY • DEPARTMENT OF NEUROLOGY

Portland, OR

Research Assistant II with Dr. Fred Robinson, Jungers Center

January 2018-Present

Roles of Endosomal Regulatory Proteins in Normal Myelination and Disease

- Determined the morphological impact of *Mtmr5* deletion on peripheral nerve development in mice
- Utilized quantitative light and electron microscopy to establish that absence of *Mtmr5* leads to loss of myelinated axons and abnormal radial sorting in peripheral nerves
- Developed an anion exchange chromatography method capable of separating inositols differing by a single phosphate
- Integrated HPLC Radioisotope detector with main chromatography system
- Bred, maintained and genotyped transgenic mouse colonies, assisted with procedures, such as perfusions
- Performed general laboratory maintenance tasks
- Self-directed and designed detail oriented analysis plans

LEWIS & CLARK COLLEGE • DEPARTMENT OF BIOLOGY

Portland, OR

Laboratory Coordinator with Dr. Greta Binford

May 2017-December 2017

Comparative Proteomics of Haplogyne Spider Venoms

- Compiled, managed, and sorted large amounts of NGS and proteomics data
- Annotated and presented proteomic data in publishable figures
- Created and interpreted rigorous phylogenetic trees using bioinformatics software
- Understood and applied core concepts of Phylogenetics and molecular evolution
- Independently managed and completed tasks in a timely manner

OREGON HEALTH & SCIENCE UNIVERSITY • DEPARTMENT OF BIOCHEMISTRY & MOLECULAR BIOLOGY

Portland, OR

Intern with Dr. James Chen

Summer 2016

Determining Protein Structure Using Single Particle Analysis

- Analyzed cryo electron microscopy images using customized software to determine structure of KATP channels
- Completed precise and detail oriented work
- Assisted with light and cryo electron microscope operation

RELATED EXPERIENCE

LEWIS & CLARK COLLEGE • DEPARTMENT OF BIOLOGY

Portland, OR

Peer tutor coordinator, Investigations in Genetics and Evolutionary Biology

2014-2017

- Organized and led peer tutoring sessions for students
- Mentored and tutored students in and outside of class
- Assisted students with scientific writing, computation and lab techniques
- Helped professors develop and carry out lab and lecture curriculum

PUBLICATIONS

Mammel, A.E., **Delgado, K.C.**, Chin A.L., Condon A.F., Hill, J., Aicher, S.A., Fedorov, L.M., Robinson, F.L. *Distinct roles for CMT-linked endosomal regulators Mtmr5 and Mtmr13 in the peripheral nervous system. Manuscript in preparation, expected submission to Human Molecular Genetics, April 1 2019.*

Binford, G.J., Bishop, S.D., **Delgado, K.C.**, Horigan, S., Kronmiller, B., and Zobel-Thropp, P.A. *Solid evidence of absence? Comparative venomomics support SMaseD recruitment before sicariid spiders and dynamic expression of gene family lineages in spider venom. Forthcoming, expected publication 2019.*

PRESENTATIONS

Delgado, K.C., Zobel-Thropp, P., Binford, G. *Comparative Proteomes of Haplogyne Spider Venoms.* Poster presentation delivered at Rogers Poster Conference, Lewis & Clark College, Portland, OR., September 2017

Delgado, K.C., *Determining 3D Protein Structure Through Single Particle Analysis.* Poster presentation delivered at Summer Science Poster Conference, Lewis & Clark College, Portland, OR., September 2016

ADDITIONAL TRAINING

HUMANE HANDLING AND LABORATORY TECHNIQUES FOR MICE • OHSU February 2018

INTRODUCTORY RADIATION SAFETY TRAINING • OHSU

May 2018

AWARDS

MILLER INTERNSHIP AWARD • LEWIS & CLARK COLLEGE

Summer 2016

RELATED SKILLS

- Electron Microscopy (FEI Tecnai G2)
- Shimadzu HPLC and accompanying software
- Beta-Ram Radioisotope detector
- Bioinformatics software - Mr. Bayes, MEGA, Mesquite, RAxML, ProtTest and FigTree
- Proteomics and Scaffold software
- Fiji
- Western Blot
- Mouse Husbandry and genotyping
- Zeiss Axioimager and ZenBlue software

REFERENCES

Fred Robinson, Ph.D.

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