

Lauren Marie Congdon

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Genetic, Molecular and Cellular Biology
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Education

8/98-5/03: Unionville High School, Unionville, Pennsylvania.

8/03-5/07: B.S., Biochemistry and Molecular Biology, B.S., Molecular and Cellular Biology University of Arizona, Tucson, Arizona.
Advisor: Terry H. Landowski Ph.D.

8/07-present: Ph.D., Genetic, Molecular and Cellular Biology, University of Southern California, Los Angeles, California.
Advisor: Judd C. Rice, Ph.D.

Awards and Honors

8/03-5/05: University of Arizona Non Resident Tuition Waiver Academic Award
1/04-5/04 and 8/06-12/06: Dean's List, University of Arizona
8/07-present: Research Fellowship, University of Southern California

Major Research Interests

Epigenetics. Chromatin structure and function. Histone modifications in differentiation and cancer.

Research Experience

1/06-7/07: Undergraduate Research Assistant, University of Arizona
Advisor: Dr. Terry H. Landowski, PhD

- Performed MTT cytotoxicity assays for various combinations of topoisomerase inhibitors, proteasome inhibitors, and kinase inhibitors.
- Performed topoisomerase II assays using gel electrophoresis to quantify enzyme activity in various cell lines.
- Performed western blots to quantify topoisomerase II expression in various cell lines before and after treatment with proteasome inhibitors.

2/08-present: Graduate Research Assistant, University of Southern California
Advisor: Dr. Judd C. Rice, PhD

- Investigating the mechanisms by which the H3K9-H4K20 monomethyl trans-tail histone code silences gene expression.

Teaching Experience

8/06-12/06: Preceptor for Biochemical Laboratory Techniques Course,
University of Arizona

Assisted students with laboratory experiments including:

- Preparation and characterization of buffers
- Colorimetric determination of protein concentration
- Size exclusion, ion exchange, and affinity chromatography
- SDS-PAGE and western transfer
- Ligand binding and steady state kinetics

Publications

Peer-Reviewed Articles:

1. **Congdon L.M.**, Pourpak A., Escalante A.M., Dorr R.T., and Landowski T.H. Proteasomal inhibition stabilizes topoisomerase II α protein and reverses resistance to the topoisomerase II poison etoposide (AMP-53, 6-ethoxyetoposide). *Biochem Pharmacol*, 75: 883-890, 2008.

Abstracts

1. **Congdon L.**, Pourpak A., Escalante A., Dorr R., and Landowski T. Bortezomib-mediated stabilization of topoisomerase II potentiates the cytotoxic activity of etoposide (AMP-53, 6-ethoxyetoposide) in myeloma cells. Poster presentation at the 98th Annual Meeting of the American Association for Cancer Research, Los Angeles, California, April 2007.