



RORY MORGAN

Oregon Health & Science University, School of Medicine, Department of Physiology & Pharmacology

Degrees:

M.S. Chemistry, University of Oregon

B.S. Chemistry (Biochem option), Gonzaga University

Advisor:

Michael S. Cohen, Ph.D.

Scholar Award Donors:

Deanne and Dick Rubinstein

Kathleen and Robert Ames

About the Scholar:

Rory is investigating a class of enzymes involved in the regulation of numerous cellular processes that operate during normal as well as diseased states. He uses his chemistry background to design and synthesize small molecules that are capable of inhibiting certain enzymatic. This allows Rory to investigate, in more detail, the mechanisms underlying a certain cellular process, especially those related to cancer and neurodegenerative disorders such as Alzheimer's and Parkinson's disease.

Benefits to Society:

The compounds that Rory synthesizes in the lab are useful tools for unraveling the cellular mechanisms underlying certain diseases linked to ARTD activity. In addition, they can also prove to be starting points for the development of drugs as therapeutics. ARTD activity has been linked to the progression of certain cancers. Drugs targeting ARTDs are already currently in clinical trials as cancer therapeutics. By designing and synthesizing new compounds targeting other ARTDs, additional cellular mechanisms can be revealed, which could be targeted with drugs developed from compounds synthesized by Rory.

Awards and Honors:

NIH T32 PMCB Training Grant (2013-2014)

AAAS/Science Program for Excellence in Science (2013-2015 – received)

Poster Presentation Winner – OHSU Research Week (2014)

Publications and Posters:

Carter-O'Connell, I., Jin, H., **Morgan, R. K.**, David, L. L. & Cohen, M. S. Engineering the Substrate Specificity of ADP-Ribosyltransferases for Identifying Direct Protein Targets. *Journal of the American Chemical Society* 136, 5201-5204 (2014).

Morgan, R. K., Carter-O'Connell, I., Jin, H., David, L. L. & Cohen, M. S. Engineering the Substrate Specificity of ADP-Ribosyltransferases for Identifying Direct Protein Targets. *OHSU Research Week*, Portland, OR, May 2014 (Poster).

Morgan, R. K., Carter-O'Connell, I., Jin, H., David, L. L. & Cohen, M. S. Engineering the Substrate Specificity of ADP-Ribosyltransferases for Identifying Direct Protein Targets. *Volcano Conference in Chemical Biology*, Sponsored by the University of Washington, Pack Forest, WA, February 2014 (Poster).