School of Medicine Alliance Awards

The following students were recognized by the School of Medicine Alliance (SMA) for their work in the 2009-2010 academic year. The awards were presented at the Alliance's Spring meeting on May 4, 2010.

Outstanding Journal Article
Joseph Aslan, PhD - Neuroscience Graduate Program
Paper title: Akt and 14-3-3 control a PACS-2 homeostatic switch that integrates membrane traffic with TRAIL-induced apoptosis. Published in *Molecular Cell* in 2009.

Certain cancer drugs cause cells to undergo a suicide-like implosion through a process called apoptosis. A new cancer drug, TRAIL, specifically kills cancerous cells but does not kill normal cells because they do not have proteins that bind TRAIL. This paper identifies what one of these proteins, called PACS-2, requires to respond to TRAIL. This is important because some cancer cells stop making PACS-2, and thus do not respond to TRAIL chemotherapy. This paper describes how cancer cells control PACS-2 production and function which makes them susceptible to TRAIL-induced cell suicide.

Outstanding Master's Thesis
Katherine W. Saylor, MS - Neuroscience Graduate Program
Her thesis research identified protein building blocks that may be responsible for development of cells in the inner ear that detect sound. Sound waves bend long hair-like structures on these cells called microvilli to initiate sound detection. Katherine identified important proteins that affect length, diameter and stiffness of these hair-like structures during development.

John A. Resko Outstanding Doctoral Dissertation
Adriana Andrade, PhD - Neuroscience Graduate Program
Adriana examined how a stroke causes nerve cell death in different regions of the brain. She discovered that different brain regions respond differently to stroke simulation, and also discovered a new mechanism that can be protective in one brain region. This is important because all potential drug candidates to treat brain damage after stroke have failed in clinical trials. Thus, it is possible that drug design needs to be tailored to the specific area of the brain that has been affected.

Alliance Award
Jennifer Vomaske - Molecular Microbiology & Immunology
Jennifer is working on the inflammatory response to cytomegalovirus (CMV). This virus is endemic in human populations but outside of immuno-compromised patients and developing fetuses, it is believed to have few adverse effects. Recent data suggests, however, that this virus may be linked to development of hypertension by producing pro-inflammatory cellular signals in the blood vessels. Jennifer's research is focused on understanding this inflammatory response to viral infection. Jennifer has been a graduate student at OHSU since the fall of 2005. In that time she has published five papers and is primary author of two of them, with an additional paper submitted for publication – an exceptional scientific output.

Before joining OHSU, Jennifer was a Peace Corps volunteer for two years in rural Kenya. She became fluent in Swahili and learned to gain the trust of people in her community, so that she was able to teach them about water purification, vaccination, HIV prevention, and to assist in economic development projects, including renovation of schools and development projects for widows. Jennifer is the embodiment of academic and scientific excellence combined with compassion and ingenuity from her experience in the Peace Corps.