

Western University of Health Sciences  
College of Osteopathic Medicine of the Pacific



# COMP Seminar Series

## Targeting Aging to Target Age-Related Disease

Presented by



**Michael Petrascheck, PhD**

Associate Professor  
The Scripps Research Institute  
La Jolla, CA

**Friday, September 15, 2017**

**12:00pm - 1:00pm**

**HSC, Compatriot's Hall, Pomona  
Eastmoreland, Lebanon**

Lunch will be served with RSVP to

[kking@westernu.edu](mailto:kking@westernu.edu) by noon, September 13

# Targeting aging to target age-related disease

Old age is accompanied by deterioration of tissues and organs, increased susceptibility to disease, and an exponential increase in mortality. The last years have seen great progress in unraveling the mechanisms of aging. It has become clear that aging is modulated by various genetic pathways which when properly manipulated can lead to an increase in lifespan. These findings have raised the exciting possibility that onset, progress or outcome of age related diseases in humans could be slowed by drug targeting aging instead of the disease itself. We have screened large libraries for small molecules that extend lifespan in *C. elegans*, a short-lived model organism. We have identified over 100 lifespan-extending molecules and have generated a pharmacological network of lifespan extension. Interestingly, many molecules that extend *C. elegans* lifespan show similar effects in mammalian cell culture experiments and protect cells from pathological protein aggregation as seen in Alzheimer's and Parkinson's disease.