



Healthy Communities



Healthy People



Healthy Environment

College of Arts & Sciences

Research & Scholarship Highlights



HEALTHY PEOPLE

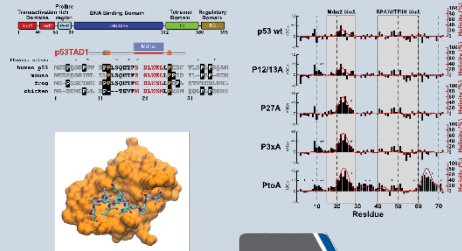
A sustainable society depends on the health and wellbeing of its people regardless of age, race, gender, or economic status. Through innovative research into the physical, social, emotional, and spiritual determinants of health and disease, CAS researchers help to identify the behaviors, treatments, and cures that create and sustain human health.



2016 CAS Research Highlights: Healthy People

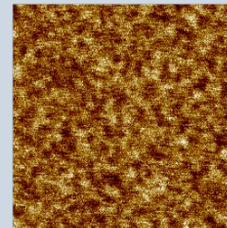


Gary Daughdrill, Associate Professor, Department of Cell Biology, Microbiology, & Molecular Biology and member of CDDI, and his research team received NIH funding for their project "[Intrinsic disorder controls the function of p53 and other cancer-associated IDPs](#)," (06/01/16 – 05/31/20) study that will explore protein disorder controls and improve our basic understanding of the structure, dynamics and function of IDPs.

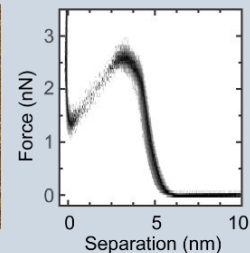


Jianjun Pan, Assistant Professor, Department of Physics, has received NIH funding for his project "[Characterizing Interactions between Bacterial Membranes and Peptidomimetics for the Development of Antibiotics Targeting Multidrug Resistant Bacteria](#)," awarded for fiscal year 2016. Dr. Pan and his research team will study molecular and cellular level interactions between bacterial membranes and a novel class of peptidomimetics with a goal to develop new generation peptidomimetic-based antibiotics that have superb potency and diminished bacterial resistance.

Atomic force microscopy



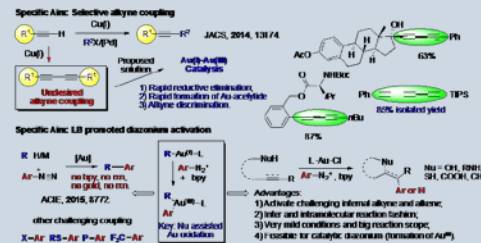
Force spectroscopy



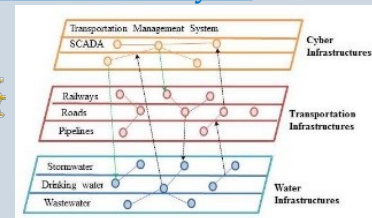
2016 CAS Research Highlights: Healthy People



[Zhimin \(Mike\) Shi](#), Associate Professor, Department of Chemistry, has received a NIH RO1 grant for his project “[Achieving challenging coupling with gold redox catalysis](#),” valued at \$1.5 million in direct costs (07/15/16 – 06/30/21). The project’s discovery and investigation will provide a novel approach in basic chemical bond construction and help with drug candidate preparation and biomedical research.



[Christian Wells](#), Professor, Department of Anthropology, is working with a team of USF engineering faculty led by Dr. Qiong Zhang who are studying how to enhance the organizational resilience of critical urban infrastructures. As part of a research team awarded nearly \$2 million from the National Science Foundation for their research titled “[Crisp Type 2: Integrative Decision Making Framework to Enhance the Resiliency of Interdependent Critical Infrastructures](#)” (09/01/16 – 08/31/20), Wells and his students will examine how organizations managing urban water and transportation systems recognize interdependencies among critical infrastructures and how those perceptions influence decision making.



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Researchers [*Bill Baker*](#), Professor, Department of Chemistry and [*Lindsey Shaw*](#), Professor, CMMB Director of Graduate Studies, have extracted a natural product chemical named “Darwinolide” from an Antarctica sponge that has been shown in their studies to eliminate more than 98% of MRSA cells. The study has received a lot of attention from external sources: [*ACS Publications*](#), [*ABC Action News*](#), [*Fox 13 News*](#), [*Science World Report*](#), and [*Science Daily*](#), among others.

2016 CAS Research Highlights: Healthy People

[Carolyn Ellis](#), *Distinguished University Professor Communication, College of Arts and Sciences*. Dr. Carolyn Ellis received the National Communication Association (NCA) Distinguished Scholar Award for a lifetime of scholarly achievement in the study of human communication. This is NCA's highest career achievement award, and was awarded to only two scholars in 2015 from a membership of over 7,000.

She was honored in an NCA session for winning the Woolbert Research Award, given to her chapter, with 3,334 citations, that has “stood the test of time” and has become a stimulus for new conceptualizations of communication research. During 2015, she published a book with Oxford University Press and completed another with Routledge, released March 2016. Both are on autoethnography, an approach for which she has been recognized as founder and developer. At two 2015 national conferences, Ellis screened a film she produced and directed in Poland about the memories of a Holocaust survivor, and also completed a second film and presented ten additional conference papers on autoethnography and compassionate research.

