THE UNIVERSITY OF ARIZONA HEALTH SCIENCES



COLLEGE OF MEDICINE TUCSON Department of Medicine

DOM Research Seminar with Drs. Craig Stump and Charles Downs - Sept. 14, 2017

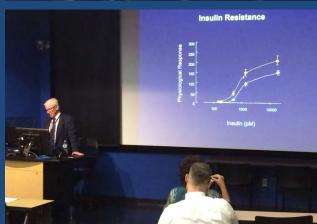




UA Division of Endocrinology's Craig Stump, MD, PhD (also of SAVAHCS), and UA College of Nursing's Charles A. Downs, PhD, ACNP-BC, talked on "RAS-Induced Skeletal Muscle Insulin Resistance" and "RAGE-Induced Changes in the Proteome of Alveolar Epithelial Cells." Archived video can be viewed <u>here</u>.



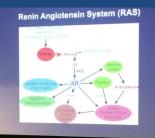








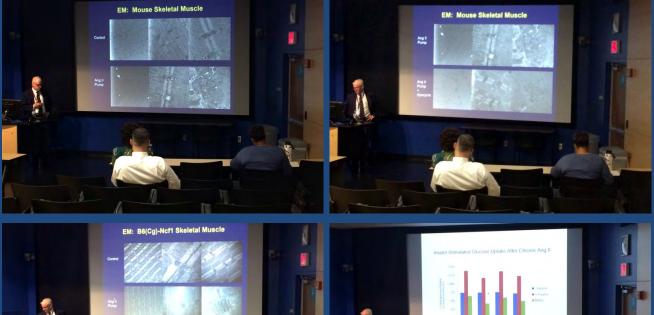








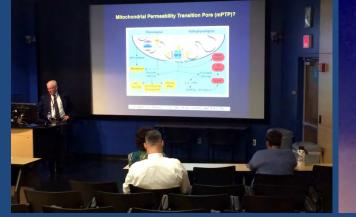








Mitochondrial Permeability Transition Pore (mPTP)?



Int

NADPH oxida

Summary

 Ang II stimulates the production of ROS in tissues including skeletal muscle.

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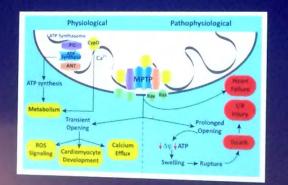
ibiting RAS appears to slow the progression to T2DM

d ROS

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Expand experiments in skeletal muscle cell cultures

- Intochondrial Functional Studies
- Role of Mitochondrial Permeability Transition Pore (mPTP)?

Mossure ΔΨ (MitoTracker? Other probes, assays markers?)
 +/- cyclosponine
 In aPDM











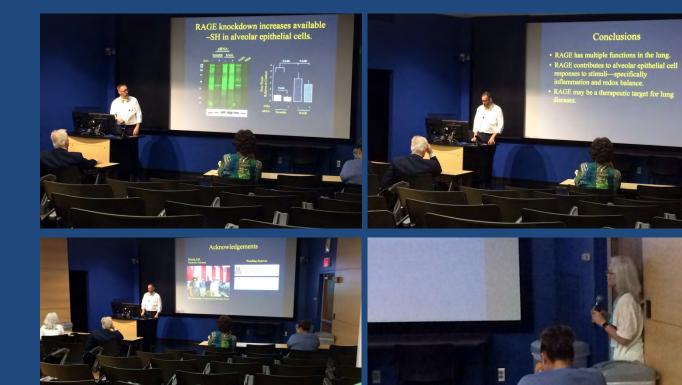
Overview

- Background
 Study design & proteome analysis—30,000 ft view
 RAGE function in the alveolar epithelium, a broad view

















Photos courtesy of David Mogollón, Communications Coordinator, UA Department of Medicine, (520) 626-1137 or <u>dmogollon@deptofmed.arizona.edu</u>