

PR 6

Office of the President
June 11, 2013

Members, Board of Trustees:

APPOINTMENT TO THE BOARD OF DIRECTORS
UNIVERSITY OF KENTUCKY RESEARCH FOUNDATION

Recommendation: that the approval be given to the appointment of Karyn A. Esser, Department of Physiology (faculty member) for a three-year term ending June 30, 2016 to the Board of Directors of the University of Kentucky Research Foundation (UKRF).

Background: In accordance with the Bylaws, members of the Board of Directors of the University of Kentucky Research Foundation are appointed by the Board of Trustees to serve three-year terms. The Nominating Committee of the UKRF Board has recommended and the UKRF Board of Directors has endorsed the appointment of Karyn A. Esser.

Action Taken: Approved Disapproved Other _____

Karyn A. Esser

Professor and Director
Department of Physiology, Center for Muscle Biology

Education:

Ph.D. University of Michigan, 1990
Postdoctoral Fellowship, Children's Medical Research Foundation, Sydney Australia

Graduate Training

Muscle Physiology

Postdoctoral Training

Molecular mechanisms during muscle development

Research: Skeletal muscle health

Skeletal muscle is the largest organ system in the body and is well known to be important for human health through its contribution to breathing and mobility and through its metabolic role as the primary site of sugar storage and fat metabolism. Recent studies, however, have provided evidence that maintaining healthy muscle can increase longevity and can improve outcomes in chronic diseases such as cancer. We have been studying the molecular mechanisms that contribute to maintenance of muscle with the goal of elucidating therapeutic strategies for long-term muscle health.

Currently, my lab is focused on the role of circadian rhythms and the molecular clock mechanism in regulating skeletal muscle health. Recent studies from our laboratory have shown that mutations of two different molecular clock genes, *Clock* and *Bmal1*, dramatically disrupt skeletal muscle structure and function. We have also shown that time of exercise and time of feeding can significantly alter the clock mechanism in skeletal muscle independent of the central clock in the brain. Our goals are to define the transcriptional networks that link the molecular clock mechanism with proper skeletal muscle function and to delineate the potential for lifestyle interventions to enhance molecular clock function and attenuate conditions of muscle weakness and wasting seen with aging and chronic diseases.