

Questions for Kim, et al, SIRT-3 is a mitochondria-localized tumor suppressor

- 1) Do you think there is an ethical aspect to aging/longevity studies? If so, where can you draw the line with sirtuin genes? There is ample evidence that SIRT-3 can directly influence longevity, but this study exhibits its promise in perhaps preventing tumors. Can we say that research into the longevity aspects of sirtuins is unethical while research into tumor-suppressive therapies is not?
- 2) What do you think the practical (in vivo) significance of the results from figure 1 are, given that exogenous stresses had to be added to see differences between the MEFs?
- 3) Given the array of effects that SIRT-3 has on cell function (ROS levels, antioxidant levels, ETC functioning, transcription factor localization, chromosomal aberrations) do you think that this study makes a stronger case for any one theory of aging (mutation accumulation, free radical, antagonistic pleiotropy)?