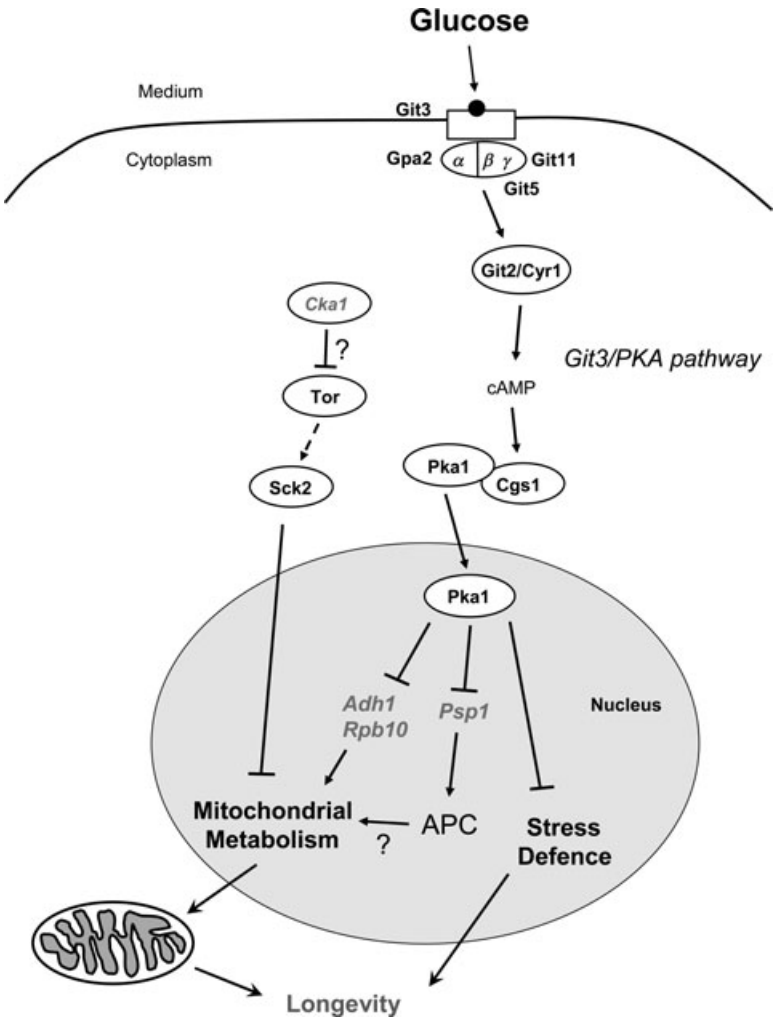

Figure 4. Model for the mechanisms responsible for aging regulation downstream of kinases Pka1/Sck2/Tor. The proteins isolated by screening for activation of respiration and longevity are represented in italics.

has been previously isolated as part of the Tor complex in fission yeast in mass spectrometry analyses.[32] Because Tor is known to be a central proaging kinase regulating Sch9 in yeast,[10,17] this led us to speculate that Cka1 could negatively regulate Tor activity in fission yeast (Fig. 4).

Finally, the *rpb10*$^{+}$ gene encodes an essential small subunit shared by RNA polymerases I, II, and III.[24] The role of this gene in longevity could be due to a global effect on gene expression, a feature that influences life span in yeast and invertebrates.[33] Further investigation is needed to address the precise role of these genes in the control of mitochondria and aging. However, our work demonstrates the power of *S. pombe* for aging research and anticipates future advances in the field.

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