**About YODA**

The Yeast Outgrowth Data Analyzer (YODA) bioinformatic tool calculates relative viability of yeast strains using outgrowth curves.1 Outgrowth curves can be generated using one of several commercially available robotic incubator/shaker/plate readers, by recording optical density at A600 (ODA600) of yeast growth over a 24-hour period. Relative viability is calculated based on the time-shift at which the outgrowth curve reaches a determined ODA600 using the formula outlined in the below figure, where ***vn*** is the relative viability, **Δ*tn*** is the shift in time (in minutes) between the reference and experimental strain, and ***δ*** is the doubling time of the strain (calculated as the maximal slope of the semi-log plot of ODA600 as a function of time). The YODA tool is useful for assaying the chronological life span of yeast2, as well as the relative viability of strains following drug treatment (e.g., stress resistance). We and others have used ODA600 set to 0.2 to calculate **Δ*tn***, but the tool is flexible to allow users to change this value based on their own experimental set up.

Questions regarding the use of YODA can be directed to Christopher Burtner (cburtner@rwu.edu).

**References**

1. Olsen B, Murakami CJ, Kaeberlein M. *YODA: Software to facilitate high-throughput analysis of chronological life span, growth rate, and survival in budding yeast.* BMS Bioinformatics. 2010 Mar 18;11:141
2. Murakami, CJ, Burtner, CR, Kennedy, BK, Kaeberlein, M. *A method for high-throughput quantitative analysis of yeast chronological life span.* J Gerontol A Biol Sci Med Sci. 2008 Feb;63(2): 113 - 121.