

Description of Additional Supplementary Data Files

File Name: Supplementary Data 1

Description: Mortality Hazard ratio plots for males. Each graph shows a single intervention as well as the cohort year (the year the intervention was begun). For example, "C2017_Capt_180_5" indicates: Cohort year_compound(s)_dose (ppm)_age when treatment was initiated (month). Abbreviations are listed in Supplementary Data 4. Y axis is the log mortality hazard ratio. Negative values indicate that the treatment group has lower mortality rate (beneficial). Positive values indicate the treatment group has a higher mortality rate (detrimental). Zero indicated there is no difference between treated and control groups. X axis is the age in days. The vertical dashed line indicates the age of the treatment onset. The upper and lower dashed lines indicated the 95% confidence interval. Two estimation methods from the Temporal Efficacy Profiler (TEP) are shown: the asymptotic method (cyan) and the bootstrap method (salmon).

File Name: Supplementary Data 2

Description: Mortality Hazard ratio plots for females. (see Supplementary Data 1 description for details)

File Name: Supplementary Data 3

Description: Interactive life course heat maps display interventions that significantly altered mortality hazard, as estimated by both bootstrap and asymptotic methods (see Figure 2 legend for details). For reference, we also include p-values from the Wang-Allison, Log-rank, and Gehan tests comparing each treatment group with its sex- and cohort-matched control group. P-values for the Wang-Allison and Log-rank tests are adapted from the Mouse Phenome Database (MPD; <https://phenome.jax.org/projects/ITP1>), with detailed statistical methods available in ITP publications (References #1 and #2). Gehan test p-values are adapted from a previously published study (Reference #7), where methodological details can also be found.

File Name: Supplementary Data 4

Description: Summary of sample sizes of all groups.