Dear editor,

We are regretful to inform you that we have identified a minor mathematic mistake in the appendix of our paper, which was recently published in J. Gerontology A (Energetic Basis of Correlation Between Catch-Up Growth, Health Maintenance, and Aging doi:10.1093/gerona/glr027).

In Appendix III, we tried to show that the approximate form of Eq. 4, the master equation of the main text, is very close to the actual form. The logic in this attempt is sound, however a mathematical error was made and resulted in the absence of a constant from the integral's result.

Mathematically, this constant term should not be neglected. Qualitatively, this term's affect is negligible; contributing only 0.9% to the overall value of Eq. 4.

As stated in the main text of the original paper, only an approximation of Equation 4 was used: *"This equation (Eq. 4) can be integrated accurately, and similar conclusion can be drawn, but this approximation yields a simpler equation and clear biological meanings"*. Therefore, inclusion of the missing constant term would have had no apparent effect on the master equation's output, and no changes to the main text are necessary.

Although the omission of a negligible term from Appendix III may be considered a minor mistake, we are sincerely sorry for having made it. The correction of the integral in the appendix is attached.

Yours,

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A correction in Appendix III

A constant term is missing in the Integral $\int_0^t m^{3/4}(\tau)d\tau$ in Appendix III. The correct result of the integral is:

$$\int_0^t m(\tau)^{3/4}\,d\tau = M^{3/4}t - [Exp(-At)] + M/a \times (4/3H^3 + 6H^2 + 12H)$$

where $[Exp(-At)] = 2M(18e^{-At}H + 9e^{-2At}H^2 + 2e^{-3At}H^3)$ is a function of time *t*, $A = B_0 t/(4E_m M^{1/4})$, $H = \mu^{1/4} - 1$, and $\mu = m_0/M$. The third term, $M/a \times (4/3H^3 + 6H^2 + 12H)$, which is a constant, was missing.

The second term, [*Exp*(–*At*)], decreases exponentially with time and can therefore be negligible, as stated in Appendix III of the original text.

The third term, $M/a \times (4/3H^3 + 6H^2 + 12H)$, does not change with time, and should be included in the result of the integral. However, this term negligibly affects the mass-specific net damage at age *T*, *D*(*T*) in Eq. 4, the master equation of the model. Using the parameters listed in Table 1, the damage due to this term, labeled as Δ below, only contributes 0.9% to the overall damage *D*(*T*):

$\Delta/(\Delta + D(T)) \approx 0.9\%$.

So, although the result of the integral shown in Appendix III is incomplete, Eq. 4 in the main text is still a very good approximation, as stated in the paper: “this equation can be integrated accurately, and similar conclusion can be drawn, but this approximation yields a simpler equation and clear biological meanings.” So, no changes to the main text are necessary.