

Lifespan: Why We Age and Why We Don't Have to.

David A. Sinclair & Matthae D. Laplante.

The book starts by giving an overview of how early life started on the planet due to thermal vents in the oceans. He also talks about a type of organism that was able to survive due to the fact that it could hunker down in times of stress.

David then goes over the story of how he became interested in longevity and how he ended up at an MIT Lab due to a dinner party.

The book then pivots and talks about his research in longevity and about the Information Theory of aging. Which uses the analogy of analog clocks for the epigenetic noise that is created over time. Then the book also touches on structures which are vital in fixing some of this epigenetic noise and have been demonstrated to be very useful in experiments.

The book also touches on newer pharmacological interventions such as rapamycin, metformin, DNP.

The book then goes over the importance of lifestyle changes on lifestyle and the tremendous ~~at~~ although limited effect they



can induce upon longevity. David talks about how hormonal stressors can affect and ~~antagonize~~ ^{antagonize} ~~stimulate~~ ^{stimulate} to clear out senescent cells within the body. These processes are very important as they clear out senescent cells within the body.

The author also talks about rapamycin which was a substance found on the Easter Islands and used for kidney transplants to decrease the immune response, but it can be also used for longevity as it slows down age-related degradation of epigenetic information.

Aging is also a disease which can cause a domino effect in regards to the lessening of other diseases. As the last problem of many diseases. This is related to the fact that many of these diseases are results of degradation of epigenetic information due to aging.

David then ends the book with the ethical considerations of stopping and slowing down aging. The main argument of David is that positive Black Swan events with an increased healthy population will become more commonplace which will pick up the burden of an increased population. There is also the consideration of who will have access to such technologies, and the exponential increase in disparity that such technologies could create with an asymmetry in access to them.