SINEs Clustering

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Until a few years ago it was thought that death caused by aging was a normal death. Unlike death caused by disease, death caused by aging was considered a natural condition and therefore no efforts and actions were taken to prevent it.

As researchers over the years have been able to find treatments for various, unrelated to age, infectious diseases, a person's average life expectancy has increased. However, the researchers noticed that there are diseases that are likely to be caused as a result of the aging process, such as cancer, heart diseases, Alzheimer's and more. Therefore, in recent years, the possibility has come to mind that it may be possible to extend life expectancy. Since then researchers have been trying to find the main cause of aging in order to prevent it and fight it.

In our research we will focus on developing a tool for researchers in the field of SINEs in aging. The SINEs are Different parts of DNA that over time mutate and replicate themselves. The replication of the SINEs can interfere with the proper functioning of DNA, which can accelerate the aging process. Our goal is to be able to cluster the SINE's into similar families and then refine those families, in order to find smaller segments that will represent SINE more reliably.