Artifical Intelligence + Longevity

"While pharma has taken a long time to adopt a more digital approach, the benefits have become too obvious to ignore and investments into AI have increased in all fields. The Longevity sector is no different."

Gero.ai:

Hacking Complex Diseases and Aging with AI for Drug Discovery and Digital Biomarkers

GeroSense

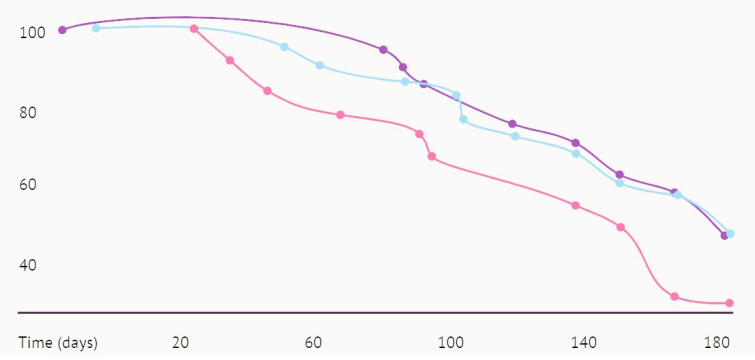
An app that helps you build a healthier life style by analyzing data to calculate recovery rate of your organisms and track your biological age using advanced machine learning to help identify the best lifestyle habits.

Protein Predicted By AI

Identifies rare mutations that affect health, and then uses data from real world big clinics to suggest druggable targets and drugs (mimicks) the effect of mutation to treat a particular disease.

Systemic Rejuvenation

Experiments with 100-weeks old animals show improved survival



DeepSeSMo:

Using AI to Assess Senecent Cell Counts

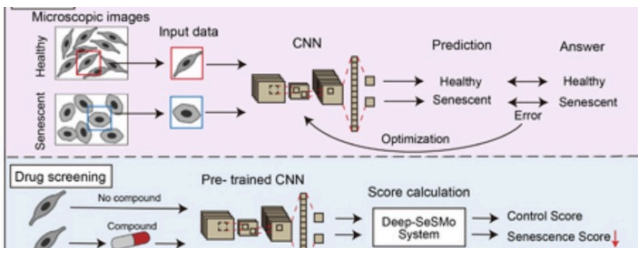
CNN Application:

Tool that could be used for visual analysis that shows how one shape is modified by another.

DeepSeSoM0:

CNN based system that is trained to show the number of scenecent cells based on biological microscopy slides.

When determining if triggers of senecence affected the algorithm, healthy cells are triggered into senescence with reactive oxygen via H2O2 exposure, the anti-cancer reagent camptothecin and replication stress through repetitive passage of cells. When the alogithm was trained on the combined sets of senecent cells, the results showed to be fairly accurate. After this trial, the algorithm was tested again on tissue treated with multiple different drugs in order to find senolytic drugs, and the four targets found were terreic acid, PD-98059, daidzein and Y-27632·2HCl. In all the drugs found, there were valid longevity properties picked out by the algorithm. After the results of the algorithm were cross-validated, possible limitations identified were that cells in the later stages of transitioning into senecence could provide false negatives/positves. Although it is a valid concern, this study did not show any changed results. Overall this algorithm could further Longevity research though explanation of senescent mechanisms



https://www.longevity.technology/ai-to-quantify-senescent-cell-counts/?utm_source=LTJanuary&utm_medium=article26&utm_campaign=MCJanuaryreview

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