

Master thesis project I – AI and big data analysis for the discovery of new aging-preventive interventions

Background

Big datasets are becoming increasingly available in biology. This accumulation of data permits the development of predictive models of unprecedented accuracy. In the field of aging, this has led to the advent of “aging clocks” that can predict individuals ages – usually from various types of omics data. Another recent trend in the aging field is the prediction of aging-preventive or even rejuvenating compounds (also known as geroprotectors). However, *in silico* approaches for either of these purposes are still in their infancy and there is still plenty of room for innovative approaches that combines different datasets in an elegant way to discover promising aging preventive compounds and health promoting interventions.

Project aims and description

Our laboratory has developed methods to predict drugs or genetic interventions that modulate aging by shifting the cells to a younger state. In this project, we propose for interested students to continue in this line of research by helping to further improve our current method. This will be done through the development of deep learning models and the use of new datasets (such as Swedish registry datasets, single cell omics datasets, etc.).

Contact

If this sounds of interest to you, don't hesitate to contact:

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