



## Biological age estimator

### What's new

Using deep learning algorithms, we have design and implemented a framework to accurately estimate a subject's biological age from routine laboratory tests (blood and urine) outputs. Additionally, it identifies the key metrics responsible for the potential basis between biological and chronological age, allowing professionals to prescribe rectifying actions aiming to close the referred biological/chronological age gap.

### Key insights

Our algorithmic framework is able to estimate an individual's biological age and compared it to his chronological age. It can also identify the key metrics responsible for the discrepancy between biological and chronological age.

### How it works

Users upload the results from routine laboratory tests into a platform specifically engineered for the task. An encoding algorithm within Topazium cloud combines all the laboratory values, feeding a non-linear algorithmic framework which returns the estimated biological age as output as well as the key metrics that it took into account for its prediction.

### Results

Topazium age-clock estimates biological age with lower mean average error than those reported across the existing reference literature.

### Why it matters

Aging is associated with higher morbidity and mortality. Our algorithmic framework can serve as a very accurate aging biomarker allowing professionals to prescribe rectifying actions aiming to close the referred biological/chronological age gap.