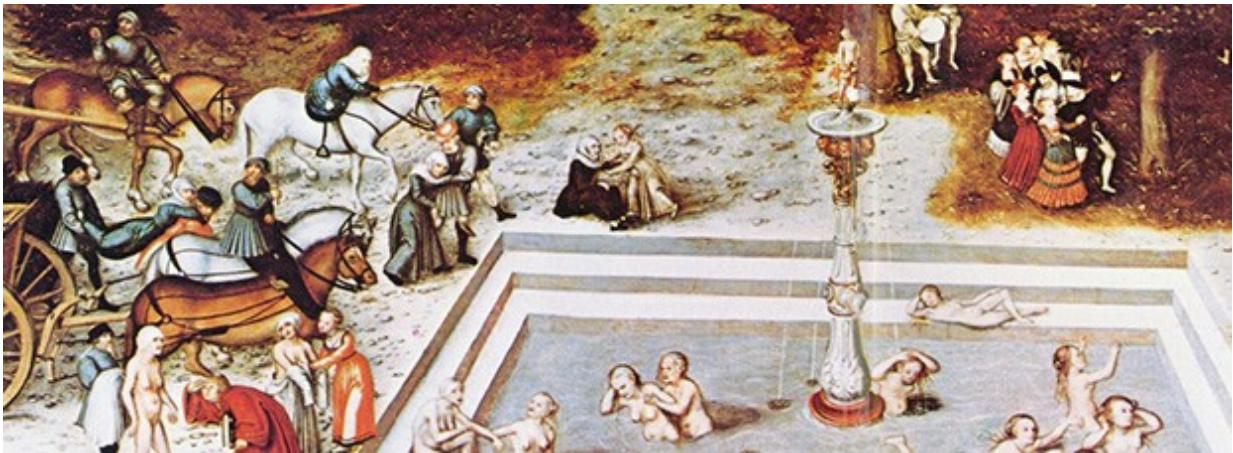


# Certain plant extracts may keep you young—and alive

March 15 2016, by Cléa Desjardins

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The Fountain of Youth, a 1546 painting by Lucas Cranach the Elder.

Even though the search for the Fountain of Youth dates back to the ancient Greeks, the quest to live forever continues today. Indeed, it has been said that the ability to slow the aging process would be the most important medical discovery in the modern era.

A new study published in the journal *Oncotarget* by researchers from Concordia and the Quebec-based biotech company Idunn Technologies may have uncovered an important factor: plant extracts containing the six best groups of anti-aging molecules ever seen.

For the study, the research team combed through Idunn Technologies' extensive biological library, conducting more than 10,000 trials to screen for [plant extracts](#) that would increase the chronological lifespan of [yeast](#).

Why yeast? Cellularly speaking, aging progresses similarly in both yeast and humans. It's the best cellular model to understand how the anti-aging process takes place.

"In total, we found six new groups of molecules that decelerate the chronological aging of yeast," says Vladimir Titorenko, the study's senior author and a professor in the Department of Biology at Concordia. He carried out the study with a group of Concordia students and Éric Simard, the founder of Idunn Technologies, which is named for the goddess of rejuvenation in Norse mythology.



An extract of willow bark has shown to be one of the most potent longevity-extending pharmacological interventions yet described in scientific literature.

This has important implications not only for slowing the aging process,

but also for preventing certain diseases associated with aging, including cancer.

"Rather than focus on curing the individual disease, interventions on the molecular processes of aging can simultaneously delay the onset and progression of most [age](#)-related disorders. This kind of intervention is predicted to have a much larger effect on healthy aging and life expectancy than can be attained by treating individual diseases," says Simard, who notes that these new molecules will soon be available in commercial products.

"These results also provide new insights into mechanisms through which chemicals extracted from certain plants can slow biological aging," says Titorenko.

One of these groups of molecules is the most potent longevity-extending pharmacological intervention yet described in scientific literature: a specific extract of willow bark.

Willow bark was commonly used during the time of Hippocrates, when people were advised to chew on it to relieve pain and fever. The study showed that it increases the average and maximum chronological lifespan of yeast by 475 per cent and 369 per cent, respectively. This represents a much greater effect than rapamycin and metformin, the two best drugs known for their anti-aging effects.

"These six extracts have been recognized as non-toxic by Health Canada, and already exhibit recognized health benefits in humans," says Simard.

"But first, more research must be done. That's why Idunn Technologies is collaborating with four other universities for six research programs, to go beyond yeast, and work with an animal model of aging, as well as two cancer models."

**More information:** Discovery of plant extracts that greatly delay yeast chronological aging and have different effects on longevity-defining cellular processes, [DOI: 10.18632/oncotarget.7665](https://doi.org/10.18632/oncotarget.7665), [www.impactjournals.com/oncotar ... article&op=view&path %5b%5d=7665&author-preview=5wx](http://www.impactjournals.com/oncotar...article&op=view&path%5b%5d=7665&author-preview=5wx)

Provided by Concordia University

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