

# Forever young: Google's quest for the Fountain of Youth

October 18 2013, by Bradley Partridge

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The promise of longevity – or even everlasting life – remains an elusive dream. Will Google's input turn that dream into reality? Credit: malik ml williams

The pursuit of everlasting life has traditionally been consigned to the realms of fantasy, science fiction or eccentric millionaires.

But now, one of the world's tech giants is behind the venture.

Last month, Google CEO and co-founder Larry Page announced the launch of a new company, California Life Company ([Calico](#)). Calico is the latest seedling to come out of Google's "moonshot" research program that isn't afraid to take a crack at low percentage, high impact

discoveries.

A decade ago, biogerontologist Richard Miller claimed that the obstacles preventing a "cure for ageing" were only 15% scientific – it was just no-one was taking it seriously.

And while politicians, funding bodies and the public at large are strongly supportive of research into finding cures for diseases, the field of applied biogerontology has preached that the best way to reduce the burden of chronic diseases like cancer, heart disease and Alzheimer's is to eliminate their biggest common risk factor – age.

Stop the ageing process and you'll likely push back many of our biggest killers in one swoop and extend human life-span.

## **Could it really work (this time)?**

Calico clearly diverges from Google's regular business operations. Could it be as successful?

Others have tried. Elixir and Sirtris are two of the better known pharmaceutical companies that focused on developing drugs to treat chronic diseases (such as diabetes) by directly targeting ageing processes.

They were also aware that regulatory authorities aren't in the habit of approving drugs that claim to cure ageing – which is not often considered to be a disease in itself.

Unlike the Google venture, both were founded by academics who were already researching the biology of ageing:

- Elixir Pharmaceuticals emerged from Cynthia Kenyon's

[pioneering work](#) showing that the life-spans of simple organisms could be greatly increased via genetic manipulations.

- Sirtris Pharmaceuticals came out of [Harvard](#) and instead focused on compounds that mimic the effects of a calorie-restricted diet.

Somewhat unexpectedly, pharmaceutical company GlaxoSmithKline bought Sirtris in 2008 for US\$720 million. Optimists hoped that one of the "off-label-side-effects" would be 90 year olds who looked 50, and the occasional person reaching their 140th birthday.

Unfortunately, neither company enjoyed an extended lifespan (and GlaxoSmithKline shut Sirtris' head office earlier this year).



Credit: Paulgi

**Enter the transhumanists**

Google's new venture appears to have an agenda that is comfortable with being strange and speculative, and there are many enthusiastic not-for-profit life-extension organisations who have long anticipated life-spans of 200, 500 or 1,000 years.

These "transhumanist" thinkers are now rejoicing at the prospect of someone with deep pockets championing their cause.

One such group is the Maximum Life Foundation whose mission is to reverse the human ageing process by the year 2033. Their CEO David Kekich salivated at the prospect of Calico accessing the Google fortune, saying:

Are billions ultimately in the cards? I hope so, because we believe only a few billion dollars over time could set the stage for, and even demonstrate, age-reversing capability.

Another anti-ageing crusader, Aubrey de Grey, leads non-profit groups the Methuselah Foundation and the Strategies for Engineered Negligible Senescence (SENS) Foundation.

He too believes that Calico will bring about an end to ageing and prove the doubters wrong:

With Google's decision to direct its astronomical resources to a concerted assault on aging, that battle may have been transcended: once financial limitations are removed, curmudgeons no longer matter.

A company that generates US\$50 billion in revenue could conceivably throw some serious cash at an idea without worrying too much about the bottom line if it doesn't turn out. But Google is unlikely to stake its fortune on this which may sorely disappoint these Methuselaha-in-the-making.

Still, a number of mainstream tech-innovators have a history of being personally attracted to radical life-extension.

For instance, when you purchase your life-extension pills online and use PayPal, you might take comfort in the knowledge that PayPal's founder Peter Thiel has already signed up to be frozen at the Alcor cryonics facility upon his (first) death.



Methuselah. Credit: Wikimedia Commons

You can do the same for US\$200,000 (or US\$80,000 for just your head). In 2006, Thiel also donated around US\$3.5 million to de Grey's

Methuselah Foundation (de Grey is also a future Alcor resident).

Alcor even held its annual conference at Google's headquarters back in 2011, and Google was one of the corporate founders of the transhumanist Singularity Institute – a group whose mission is to use technology to transform humans into something better than human, and for the benefit of humanity.

## **Who wants longer life?**

For all the talk about the social benefits of this goal, it's not difficult to see who is pushing hardest for everlasting life.

When the World Transhumanist Association surveyed their members in 2007 they found that 90% were male with a median age of 30-33, and most were from the US or Europe.

Interestingly, when we interviewed members of the Australian public about the prospect of life-extension, most saw it as a mixed blessing fraught with ethical and social difficulties.

In fact only 35% said they would definitely take a drug that could slow their ageing and allow them to live to 150 years (men were far more enthusiastic than women)!

Perhaps they'd change their mind if the genuine article was produced. But is that likely to happen anytime soon? Calico's budget is yet to be defined and Larry Page himself has said that this is a long-term bet.

De Grey once estimated that human lifespan in the year 2100 would be 5,000 years. Whether or not Google makes it happen you can at least bet that the immortalists will be hanging on every word (and dollar).

But by 2100? You have to wonder whether we'll even be using Google then.

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