

## Google's Stealth Anti-Aging Program Seeks To Stick it to Republicans

- Google founders feels they are all young democratic liberals who funded Obama and Republicans are all old dying white men who funded cancer-causing industries. Their plan: Simply outlive the GOP and put their ageless hipsters in all political offices.

- Buck Center in liberal Marin County was studying relationship to cancer and oil companies and lost it's federal funding for finding that petroleum products cause cancer. Now Google has covertly swooped in to fund the Buck Center in order to, both, reveal that “the Republicans cause Cancer” and, also, outlive the “old Republican elitists”. Republicans cut off Federal Buck funding via federal science program budget tricks, to punish Buck for researching Oil/Cancer connections.

- Google's Eric Schmidt believes he is Jesus-figure who has come to save humanity. Friends say he believes his vision of the “proper way society should be” is “divine inspiration”. An immortal Eric Schmidt see himself as future leader of the USA.

What's He Building in There? The Stealth Attempt to Defeat Aging at Google's Calico.



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Is the secret to a long life in our genes?

## Science



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*[Alphabet](#), Google's newfangled conglomeration, arrived in August, but we will not see its first financial figures until January, when the company reports two sets of earnings — Google and the “other bets.” Each subsidiary will not break out its own performance, but the earnings reports will offer some view into their costs and output. Before then, **Re/code** is unpacking one Alphabet company a week\*, presenting the facts, figures and, just maybe, the financials behind the silos of the world's most ambitious company.*

*So far, we have:*

- [Nest](#)
- [Access and Energy](#)
- [Google Ventures](#)
- [Verily](#)
- [Google Capital](#).

*Up next: Calico.*

Talk about a headline that sings. “Google vs. Death.” [The Time magazine cover story](#) from September 2013 heralded the creation of California Life Company, or Calico, a new firm incubated by Google with the audacious aim to extend human lifespans.

Although Calico formed two years before Alphabet, it had many of the markers Google's co-founders

outlined as their rationale for the holding company. A startup staring down a moonshot issue? Check. A problem with a very long time horizon? Check. Google's tech savvy applied to a market well outside its domain? Check. A venerated founder at its helm? Calico chief Arthur Levinson — former CEO and board chair of biotech firm Genentech, board chair of Apple — may be the biggest heavy-hitter among Alphabet's execs.

Financial support from Alphabet: \$730 million

Key execs: Arthur Levinson, CEO; David Botstein, chief scientific officer; Jonathan Lewis, VP, business development

Levinson did not speak to Time for its story. And he has said basically zilch publicly about his company since. Yet some of the hyperbole accompanying Calico (Google wants to disrupt death!) is just that. It is evident that Levinson's secretive company is focused on medical solutions that fend off the illnesses that come with old age; it's not trying to give us immortality.

Calico has announced six partnerships for research and drug development, linking arms with two universities, a nonprofit, a pharmaceutical company (AbbVie) and the genealogical data firm Ancestry. Like Verily, Alphabet's other health unit, Calico seems to be operating as a high-tech research and development lab, creating medical products that its pharma partners will take to market.

So, one day you may be able to buy a pill that extends your life, dreamed up in a lab funded by a search engine. When and how those drugs will arrive — or be priced — remains unclear.

Unlike Verily, which is focused on various diseases, Calico has a singular mission: Extending life. Currently, the company has several research teams each experimenting with different avenues of longevity research, according to people who are as familiar with its operations as outsiders can be.



Chip Somodevilla | Getty Images Arthur Levinson, Calico chief executive, gives a life lesson to President Barack Obama.

And unlike Verily, Calico has not plunged into Google proper to fill its roster. Instead, the biotech firm

has hired medical experts primarily from academia and Levinson's former company. Recent ones include David Botstein, a geneticist and former Genentech VP; Shelley Buffenstein, a physiologist who studies mammals with exceptionally long lives; and Dan Gottschling, a cell biologist with the baroque title at Calico of distinguished principal investigator.

What Calico's staff investigated before joining Calico gives us *some* glimpse into the black box of the company. (Calico never comments beyond pointing to its bare-bones website.) Several of its scientists have backgrounds in cellular biology and genetics. So they are equipped to identify and manipulate genes tied to animal (and maybe human) longevity, and work with massive datasets, [like the one courtesy of the Ancestry deal](#). Newer Calico staff arrived with training in emerging, more experimental methods, such as [synthetic biology](#) and [optogenetics](#).

Calico has also hired several experts on cancer, one of its two stated targets, along with neurodegeneration or the loss of functioning neurons. This is familiar terrain for Levinson; Genentech's largest sellers were cancer drugs, primarily Avastin, when it was acquired by Swiss pharma giant Roche in 2009, the year Levinson left. But Genentech was pushing treatment pills. It wasn't tackling "one of life's greatest mysteries," as Calico's slogan boldly declares.

As Time pointed out, most research in Calico's orbit is within nonprofits; one for-profit that tried to market anti-aging drugs, Sirtris Pharmaceuticals, folded after failing to find a market. Calico does have some direct competitors, including Human Longevity Inc., a cell therapy firm backed by famed geneticist Craig Venter.

HLI announced a \$70 million funding round in 2014. As of September, Google disclosed that it gave \$240 million to Calico, in exchange for stock plus promised support of up \$490 million should Calico need it.

## Who to Know

Levinson was Genentech's chief scientist, a veteran researcher with no business experience, when promoted to CEO in 1995 — a "nerd from central casting," per an insightful [2000 New York Times article](#). He quickly proved his business chops. The biochemist helped steer Genentech out of financial entanglements with Roche, boosting its stock and moving several drugs to market. Sales grow from \$918 million in the fourth quarter of 1995 to \$2.45 billion in his final quarter as CEO.

Levinson also manages the astonishing feat of simultaneously being an executive within Google and an Apple board member. (He left Google's board in 2009.)

His pick to build Calico's bottom line is **Jonathan Lewis**, who spent ten years scaling up partnerships and investments for Genentech. After that, Lewis worked on mergers and acquisitions for Roche and business development for European pharma titan UCB.

**David Botstein**, Calico's chief scientific officer, joined from Princeton with a curriculum vitae padded with awards. His colleague and fellow genetic researcher, **Cynthia Kenyon**, runs aging research for Calico. She's credited with discovering a gene mutation in a roundworm that sparked the study of

stretching our lives. From Calico's website: "Her findings showed that, contrary to popular belief, aging does not 'just happen' in a completely haphazard way. Instead, the rate of aging is subject to genetic control."

Off Kenyon and her cohort go, trying to turn that control into a biotechnology business. Somehow.

And here, from the inimitable Tom Waits, is the most appropriate soundtrack for the company cloaked in mystery.

\* So far, Alphabet has confirmed the existence of nine subsidiaries, including Google. It's very likely that an additional one or two — or many — may get the official stamp before the earnings report in January. Rest assured, we will tell you about it if it happens.

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