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**Subject:** FW: (BN) Google Ventures' Maris Fully Invested in Idea of Living to [C]  
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Classification: **Confidential**

Not sure if you saw this in the Bloomberg Magazine, but Foundation Medicine is extensively debated (a "Google for oncologists"). I marked relevant paragraphs in bold.

-----Original Message-----

From: Daniel Sabba (DEUTSCHE BANK SECURI) [mailto:sabbdan@bloomberg.net]  
Sent: Monday, April 13, 2015 8:14 AM  
Subject: (BN) Google Ventures' Maris Fully Invested in Idea of Living to

(BN) Google Ventures' Maris Fully Invested in Idea of Living to  
500

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Google Ventures' Maris Fully Invested in Idea of Living to 500  
2015-03-09 04:01:04.69 GMT

By Katrina Brooker

(Bloomberg Business) -- "If you ask me today, is it possible to live to be 500? The answer is yes," Bill Maris says one January afternoon in Mountain View, California. The president and managing partner of Google Ventures just turned 40, but he looks more like a 19-year-old college kid at midterm. He's wearing sneakers and a gray denim shirt over a T-shirt; it looks like he hasn't shaved in a few days.

Behind him, sun is streaming through a large wall of windows. Beyond is the leafy expanse of the main Google campus. Inside his office, there's not much that gives any indication of the work Maris does here, Bloomberg Markets will report in its April 2015 issue. The room is sparse—clean white walls, a few chairs, a table. On this day, his desk has no papers, no notepads or Post-its, not even a computer.

Here's where you really figure out who Bill Maris is: on his bookshelf. There's a fat text called Molecular Biotechnology: Principles and Applications of Recombinant DNA. There's a well-read copy of Biotechnology: Applying the Genetic Revolution. And a collection of illustrations by Fritz Kahn, a German physician who was among the first to depict the human

body as a machine. Wedged among these is a book that particularly stands out to anyone interested in living to 500.

The Singularity Is Near: When Humans Transcend Biology, published in 2005, is the seminal work by futurist Ray Kurzweil.

He famously predicted that in 2045, humankind will have its Terminator moment: The rise of computers will outpace our ability to control them. To keep up, we will radically transform our biology via nanobots and other machines that will enhance our anatomy and our DNA, changing everything about how we live and die.

"It will liberate us from our own limitations," says Maris, who studied neuroscience at Middlebury College and once worked in a biomedical lab at Duke University. Kurzweil is a friend.

Google hired him to help Maris and other Googlers understand a world in which machines surpass human biology. This might be a terrifying, dystopian future to some. To Maris, it's business.

This is where he hopes to find, and fund, the next generation of companies that will change the world, or possibly save it. "We actually have the tools in the life sciences to achieve anything that you have the audacity to envision," he says. "I just hope to live long enough not to die."

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Maris is an unusual guy with an unusual job. Seven years ago, Sergey Brin and Larry Page, the founders of Google, tapped him to start a venture capital fund, putting him smack between those tech titans and the sea of ambitious entrepreneurs trying to be just like them. At the time, he was a young entrepreneur himself, with limited investing experience and no clout in Silicon Valley. He'd sold his Vermont-based Web-hosting company and was working at a nonprofit, developing technology for cataract blindness in India. This made him exactly the kind of outsider Google was looking for. "Bill was ready to come at this from an entirely new perspective," says David Drummond, who, as Google's chief legal officer and senior vice president of corporate development, oversees Google Ventures as well as the company's other investment vehicles.

Google Ventures has close to \$2 billion in assets under management, with stakes in more than 280 startups. Each year, Google gives Maris \$300 million in new capital, and this year he'll have an extra \$125 million to invest in a new European fund. That puts Google Ventures on a financial par with Silicon Valley's biggest venture firms, which typically put to work \$300 million to \$500 million a year. According to data compiled by CB Insights, a research firm that tracks venture capital activity, Google Ventures was the fourth-most-active venture firm in the U.S. last year, participating in 87 deals.

A company with \$66 billion in annual revenue isn't doing this for the money. What Google needs is entrepreneurs. "It needs to know where the puck is heading," says Robert Peck, an analyst at the investment bank SunTrust Robinson Humphrey, who published a report in February examining Google's outside investment units, including Google Ventures. "Look at what happened to BlackBerry when it missed the advent of smartphones.

And Yahoo! missed Facebook."

Google puts huge resources into looking for what's coming next. It spends millions on projects like Google X, the internal lab that developed Google Glass and is working on driverless cars. In January, the company made a \$900 million investment in Elon Musk's SpaceX. In 2014, it started Google Capital to invest in later-stage technology companies. Maris's views on the intersection of technology and medicine fit in well here: Google has spent hundreds of millions of dollars backing a research center, called Calico, to study how to reverse aging, and Google X is working on a pill that would insert nanoparticles into our bloodstream to detect disease and cancer mutations.

Maris has a peculiar position in the Googlesphere. He's a part of it, but also free from it. Google Ventures is set up differently than most other in-house corporate venture funds—Intel Capital, Verizon Ventures, and the like. The firm makes its investments independent of its parent's corporate strategy. It can back any company it wants, whether or not it fits with Google's plans. The fund also can sell its stakes to whomever it wants, including Google competitors. Facebook and Yahoo have bought startups funded by Google Ventures.

With Google's money and clout behind him, Maris has a huge amount of freedom. He can, and does, go after Silicon Valley's most-sought-after startups. Uber, Nest, and Cloudera are among the firm's big wins. Maris doesn't intend to stop pursuing these kinds of deals. But he has other ambitions, too. "There are plenty of people, including us, that want to invest in consumer Internet, but we can do more than that," he says. He now has 36 percent of the fund's assets invested in life sciences, up from

6 percent in 2013.

"There are a lot of billionaires in Silicon Valley, but in the end, we are all heading to the same place," Maris says. "If given the choice between making a lot of money or finding a way to make people live longer, what do you choose?"

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Maris is standing at the front of Joshua Tree, Google Ventures' large conference room. Each room at headquarters is named after a national park. "OK, we have a lot to get through today," he tells his staff. The group meets here biweekly to talk about prospects and strategy.

Maris has a team of 70, most of whom are in the room this day or patched in by phone or video. The group includes the fund's 17 investing partners, who are in charge of finding startups. Among the investing partners are Joe Kraus, co-founder of Excite; Rich Miner, co-founder of Android; and David Krane, employee No. 84 at Google.

The mood in the room is casual. Some staffers sit cross-legged on the floor; others curl up on soft felt couches. There are a lot of jokes. One partner starts his presentation with a slide entitled "Secret Project"—which most people in the room already know about—and concludes it with a doctored-up photo of Maris's head superimposed on the body of someone playing tambourine. It's a jab at the boss, who married the singer-songwriter Tristan Prettyman last August and recently went on tour with her. Everyone laughs. Maris smiles, but immediately he's back to business. "Time is the one thing I can't get back and can't give back to you," he says, turning to an agenda on the screen behind him.

"I know you're all aware of the conference happening this week," Maris says. An hour away in San Francisco, JPMorgan Chase is hosting its annual health-care confab, nicknamed the Super Bowl of Health Care. Thousands of pharmaceutical executives and investors have gathered for what has become a huge part of the industry's dealmaking. Most of Google Ventures' life sciences startups are attending. **One, Foundation Medicine, which uses genetic data to create diagnostic oncology tools, is generating huge buzz this year. In January, Roche Holding announced plans to take a majority stake in the company, in a transaction valued at \$1 billion. The stock more than doubled the next day. Google Ventures has a 4 percent stake in the company.**

**For Maris, Foundation Medicine represents the beginning of a revolution. "The analogy I use is this," he says, holding up his iPhone 6. "Even five years ago, this would have been unimaginable. Twenty years ago, you wouldn't have been able to talk to anyone on this."**

**When Google Ventures invested in Foundation in 2011, the company's promise was mostly theoretical. The world was still waiting for the breakthroughs that have seemed inevitable ever since scientists first mapped the human genome in 2003.**

**Foundation's team included eminent geneticists, including Eric Lander, one of the leaders of the Human Genome Project. Still, the company had no viable commercial product.**

**Technology has made huge strides since then, allowing Foundation to create products like its Interactive Cancer Explorer, which is a kind of Google for oncologists, allowing them to do research and devise treatments for their patients.**

**"We had a lot to learn from the experts in Silicon Valley," says Foundation's CEO, Dr. Michael Pellini, who sought out Google Ventures as an investor for help with designing his company's technology. "Think about Google search. We never think about all the algorithms that go behind what we see on the screen. They were able to do the same for us with genetic information."**

**"Twenty years ago, without genomics, you could only treat cancer with a poison," Maris says. "That's really different from, 'We can cure your cancer by reverse-engineering a stem cell.' You can now legitimately invest in a company that could cure cancer."**

Identifying promising life sciences companies isn't like hunting around Silicon Valley for coders with a cool app.

Biotech companies are built around complicated science. They require millions of dollars in investments, partnerships with big pharma companies, and lengthy clinical trials. To help with his hunt, Maris has brought in scientists as partners. One, Dr.

Krishna Yeshwant, a Harvard- and Stanford-trained doctor, still works in a clinic twice a week in Boston, where he is based.

Last year, he led the firm's biggest bet in life sciences, an investment in Flatiron Health, which is building a cloud platform to analyze cancer data.

This is just the beginning. "In 20 years," Maris says, "chemo will seem so primitive it will be like using a telegraph."

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At the age of 22, just out of college, Maris met the friend who would lead him to Google. It was 1997: Yahoo was search, AOL was e-mail, Google was called BackRub. Maris was in New York, working at Investor AB, a Swedish investing firm. He didn't care for Wall Street, but he did like the smart Yale grad sitting next to him. She told him about a company that was going to change the world. "I remember telling him about this new search engine my sister was working on, and he said, 'Oh, Yahoo is good enough,'" recalls Anne Wojcicki, who would become the wife of Sergey Brin. Her sister Susan, one of Google's earliest employees, is now CEO of YouTube. Anne Wojcicki went on to co-found 23andMe, a genetics testing company that is part of Google Ventures' portfolio.

Maris quit Investor AB after six months and went to Burlington, Vermont, to start a Web-hosting company. He was so green that he read Netscape and the World Wide Web for Dummies. He funded his company, Burlee, with his credit cards and by convincing the operators of the Lake Champlain ferry to invest.

Maris sold Burlee to a company that became Web.com for an undisclosed sum in 2002. It wasn't Google-level money, but it was enough for him to live on in Vermont with no job.

He would have stayed there except that his old friend, Wojcicki, kept calling him West. Maris started visiting her and Brin, staying at their home in California. He increasingly became drawn into their sphere. "He and Larry and Sergey would be at dinner and start talking about, I don't know, flying cars," recalls Wojcicki.

In 2008, Google's chiefs tapped Maris to start a venture fund, an idea they'd been kicking around for a while. They gave him a desk at Google and instructions to figure out how he would invest Google's money. In an only-at-Google twist, his neighbor was Kevin Systrom, who was working on a photo app called Burbn, later Instagram. ("Everyone I sit next to ends up becoming a billionaire," Maris jokes.)

Maris spent six months researching venture capital around Silicon Valley. He traveled up and down Sand Hill Road, home to many of the Valley's most prestigious VC firms, asking top investors for advice. At first, he had a hard time getting anyone to take him seriously. During one meeting, a VC started laughing at his idea for Google Ventures.

Maris was told his fund would never work: VCs wouldn't want Google looking over their shoulders. "There were some in the venture world who weren't particularly welcoming to Bill or Google Ventures," recalls John Doerr, a legendary partner at Kleiner Perkins Caufield & Byers, one of the most important first-generation California VC firms. Doerr, who sits on Google's corporate board, advised Maris on setting up the venture fund.

Around Silicon Valley, corporate venture funds have a bad reputation. "There is an inherent paradox to the notion of corporate venture," says Bill Gurley, a general partner at the VC firm Benchmark Capital. The conflict is, do the fund's loyalties lie with the startup or with the parent? Just about every independent venture capitalist in tech has stories of being burned by corporate funds. Either the company uses its venture investments to gather intelligence and ends up competing with the companies it funds or company management loses interest at some point and pulls out.

Entrepreneurs were skeptical, too. "I told him, this is never going to work," says Joe Kraus, who, in addition to co-founding Excite, co-founded a wiki software company called JotSpot, which was sold to Google. Maris asked him early on to join as a partner in Google Ventures. "From the entrepreneur's perspective, the idea of tying myself to Google would have been scary." Kraus says. "The fear would be, if you raised money from Google, would Apple hate you?"

Entrepreneurs who can get comfortable with Google Ventures gain access to resources no amount of money can buy.

To win over other VCs and entrepreneurs, Maris and his bosses at Google established the terms under which the fund still operates. Google has no access to details about the startups' strategy or technology. That way, entrepreneurs can pitch without worrying about their ideas being stolen. "We had to convince entrepreneurs they could work with us," says David Drummond.

Those who can get comfortable with Google Ventures gain access to resources no amount of money can buy. The firm can, and does, introduce its startup founders to anyone at Google—experts on rankings on Google search, for example, or user experience designers or Android mobile-app builders. One startup was offered 1 million hours of core processing time on the Google cloud for free.

A big edge for Google Ventures is its design team. Maris drew top tech talent out of Google and made them partners in the fund. One worked on Gmail; another helped redesign YouTube. They form a sort of SWAT team for startups. In what's known as a design sprint, they

can troubleshoot whatever is ailing a startup—a flailing app, slow Web traffic, an uninspiring home page. (See “On the Clock,” above.)

“We didn’t need the money,” says Ryan Caldbeck, co-founder of the crowdfunding startup CircleUp. He picked Google Ventures as one of his backers in part to gain access to its design talent. Twitter co-founder Ev Williams used the design team for his new publishing platform, Medium. Stewart Butterfield, co-founder of Flickr, used the team for his new startup, Slack.

Still, navigating the line between startups and Google can get complicated. Last year, Google wanted to buy Nest, whose signature product is a WiFi-connected, learning home thermostat.

Google Ventures recused itself from the negotiations, allowing the other VC firms invested in Nest to broker a price of \$3.2 billion. (It was the fourth-largest venture exit of 2014.) In February, Bloomberg reported that Google was planning a ride-sharing app that would be a direct competitor to Uber. Google Ventures has had a stake in Uber since 2013. If Google and Uber go to war, Maris will be right in the middle of it.

“Google Ventures has a direct financial incentive to ensure the companies we invest in succeed,” Maris said in an e-mail responding to questions about potential conflicts. “Our investment decisions are made independent of Google’s product road map.” He and the other partners are paid carried interest based on the performance of portfolio companies. In theory, if Google’s car app kills Uber, Google Ventures loses money.

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One evening in San Francisco, a group of young scientists and doctors are sitting down to dinner. “I remember when Max was living with me and I opened up my fridge and saw this stuff he put in there. I was thinking, Is this safe?” muses Blake Byers, a 30-year-old with a Ph.D. in bioengineering from Stanford and a partner at Google Ventures. He casts a sideways glance at Max Hodak, a 25-year-old Duke biomedical engineering grad sitting next to him. Three years ago, Hodak started working in Byers’s garage to build a robot-enabled laboratory. Once he stored chemicals in Byers’s freezer. (“Blake gets a little carried away with that story,” says Hodak. “There was never any danger.”)

Hodak now runs Transcriptic, a company that builds and operates robot-run labs in shipping container-sized boxes. It packs them with enough computing power to run multiple experiments from anywhere in the world. Theoretically, a scientist in Monrovia, Liberia, with access to a laptop or a mobile phone could use a Transcriptic lab to test strains of Ebola. Byers, who is the son of Brook Byers of Kleiner Perkins, has helped Hodak raise \$12.5 million from Google Ventures and others.

“We are just on the verge of what science and technology can do,” says David Shaywitz, chief medical officer of DNAnexus, who’s seated across from Byers and Hodak. His company, also backed by Google Ventures, is building a global bank of genomic information using cloud computing.

Listening to the scientists gathered around the table, it’s hard not to get caught up in the world they see coming. In this vision of our future, science will be able to fix the damage that the sun or smoking or too much wine inflicts on our DNA. Alzheimer’s, Parkinson’s, and other scourges of aging will be repaired at the molecular level and eradicated. In the minds of this next generation of entrepreneurs, the possibilities are bizarre and hopeful and endless. We probably won’t live forever, but we could live much longer, and better.

These are the bets Google Ventures is hoping will ultimately be its biggest wins. “We aren’t trying to gain a few yards,” Maris says. “We are trying to win the game. And part of it is that it is better to live than to die.”

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