

Crowdsourcing the End of Alzheimer's

From May-October, 2017, Philip Edgcumbe was the Bold Innovator and leader of the XPRIZE Alzheimer's Visioneers team. He was tasked with developing a multi-million dollar research incentive prize to End Alzheimer's. He presented the XPRIZE competition concept at the annual XPRIZE Visioneers Summit in October, 2017 and beat out four other teams to be named the Top Priority XPRIZE competition for launch in 2018. Furthermore, his team received a \$25 million pledge from the Edelman's to support the Alzheimer's XPRIZE initiative. Philip's home for the summer was in Venice, Las Angeles, but he didn't have much time for surfing because the project took him to over 10 cities to interview over 60 Alzheimer's researchers and advocacates. We asked Philip, a MDPHD student at UBC, to share his XPRIZE experience with us.



Philip celebrates the Alzheimer's team's success at the XPRIZE Visioneers Summit

My time working for XPRIZE was an incredibly rewarding experience. XPRIZE (www.xprize.org) is a non-profit and global leader in solving the world's Grand Challenges by creating and managing large-scale incentive prize competitions. Some of XPRIZE's past and current prizes include the \$10M Ansari XPRIZE for suborbital spaceflight, which launched today's \$3B private sector space industry; the \$30M Google Lunar XPRIZE to land a privately funded rover on the Moon; and the \$10M Qualcomm Tricorder XPRIZE to bring healthcare to the palm of your hand. Prize competitions democratize innovation and break research silos, inspire additional investment, pay only for success and raise public awareness about important issues. The team that wins the XPRIZE competition wins the multi-million dollar prize purse. The 10 criteria against which an XPRIZE proposal are measured are: Massive Transformative Purpose, XPRIZE needed, Prizeable, Solid Prize Structure, Critical Mass of Teams, Exponential/Forward Looking, Ecosystem and Advocacy, Results in Impact Independent of a Winner, Scales Impact, and Fundable.



Human civilization enters uncharted ageing territory thanks to the longevity revolution.

The XPRIZE foundation is an innovation engine and a facilitator of exponential change. It transforms how people think about the world's biggest problems and incentivizes their solutions. Alzheimer's Disease (AD) certainly is a big problem and given the failure of anyone to development an effective treatment for AD, it deserves an XPRIZE. You may ask, how big of a problem is AD? It is so big that it is set to become the social and economic sinkhole of the modern era. It is incurable and fatal.

There are 5.5 million Americans and 30 million people around the world with AD. Those numbers are expected to triple by 2050. The current cost of caring for American AD patients is over a quarter trillion dollars per year. One in three people over the age of 85 have AD, the biggest risk factor for Alzheimer's is age, and we are in the middle of a historic longevity revolution. The number of deaths due to AD has increased 89% between 2000 and 2014.

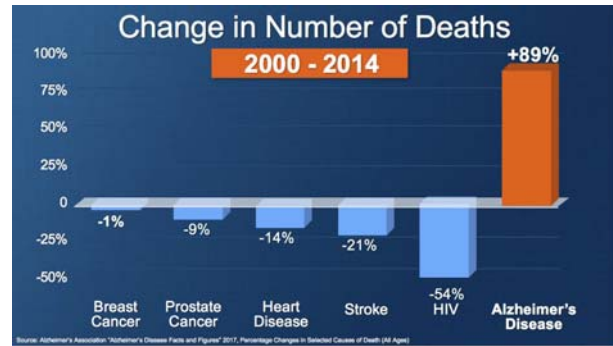


Chart showing the change in number of deaths in the USA due to a number of diseases.

The senior advisors to our Alzheimer's Visioneers XPRIZE team included:

- Ken Dychtwald, Ph.D., psychologist, gerontologist, best-selling author of 16 books on aging-related issues and CEO of AgeWave
- George Vradenburg, J.D., Attorney, Co-Founder and Chairman of UsAgainstAlzheimer's, Member of World Dementia Council
- Lisa Genova, Ph.D., Neuroscientist and Best-Selling Author of *Still Alice*

I would like to especially thank Victor Li, a fellow UBC MDPHD student, for joining our team of advisors. Victor, who did his PhD in Neuroscience with a focus on Alzheimer's, made time to meet with me on a weekly basis to help develop the strategy for the Alzheimer's XPRIZE.

As presented at the XPRIZE Visioneers Summit, the **winning team of the Alzheimer's XPRIZE competition will find a biotarget (a means of predicting ALZ) that is actionable (can be modified to slow the progression of the disease)**. We believe there are novel ways of both detecting and treating AD that will come to light through this XPRIZE competition. At the Visioneers Summit, Ric and Jean Edelman generously pledged \$25 million in support of the Alzheimer's XPRIZE. We hope that the Alzheimer's XPRIZE competition will be officially launched and open to competitors by the fall of 2018.



Picture of the Alzheimer's Visioneers XPRIZE team with Peter Diamandis (kneeling) and Marcus Shingles (middle).

I was grateful that the Faculty of Medicine and the UBC MDPHD program supported my pursuit of this opportunity. The mission of the UBC MDPHD program is "...to be Canada's leader in preparing the future generation of clinician-scientists." During my time at XPRIZE I worked with clinicians, scientists and many other stakeholders to map out how we can transform Alzheimer's. Working at XPRIZE isn't the conventional bench to bedside translational research that we are trained to do, but I've

learned that in order to have impact, it's important to be creative, take risks and keep the end goal of helping patients in mind.

Sincerely, Philip Edgcombe