Re-Mission 2

"The publication of Re-Mission data represents the fulfillment of HopeLab's founding vision — that rationally engineered technology can be a powerful tool to improve the health of young people."

Pam Omidyar
Founder of HopeLab

Game Technology Helps Young People Fight Cancer

We've all heard it before: video games do more harm than good. But HopeLab founder Pam Omidyar had a different vision. Why not intentionally design games to empower young people to make better decisions that affect their health and the quality of their lives?

A BOLD IDEA BECAME REALITY

Omidyar imagined a video game that could help children with cancer feel more powerful and fight their disease. She founded HopeLab in 2001 to make her idea a reality. In 2006 HopeLab launched Re-Mission, the first video game scientifically proven to improve health outcomes for young people with cancer. Here's how HopeLab turned gaming technology on its head:

Empower kids for the fight of their lives. In Re-Mission and Re-Mission 2, players enter the human body as microscopic robots to fight cancer at the cellular level. Armed with weapons and super-powers like chemotherapy, antibiotics, and the body's immune cells, players blast away cancer cells in scenarios that parallel real-world strategies for fighting cancer. Patients learn about what is happening inside their bodies, gain a sense of power and control over their illness, and become more engaged in their treatment.

> **"Fighting cancer in this game, it's like you have control over your own destiny."**
>
> – 18-year-old Hodgkin's Survivor and Re-Mission Player

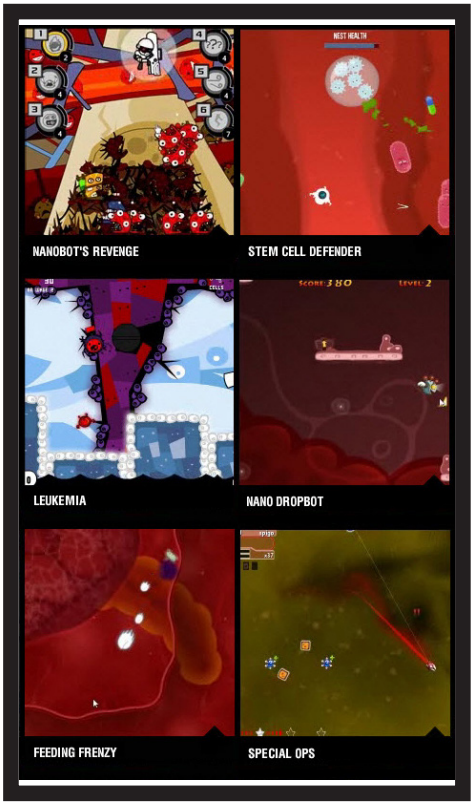
Apply user-centered design. Re-Mission and Re-Mission 2 were developed in collaboration with researchers, medical experts, game developers, and hundreds of young people with cancer. To hone our design, we went directly to young people with cancer and invited them to test our ideas and talk to us about their experience. Through our process, we learned that players wanted drama, complex organic environments, lots of feedback, and clear, achievable goals. And they wanted a sense of accomplishment and the feeling that it's possible to win.

> **"Even though it looks like there's a lot [of cancer cells], once I start shooting, I feel like it's possible."**
>
> – 14-year-old Re-Mission Player

Test for impact. Once we designed the original Re-Mission, we conducted rigorous scientific research to prove the benefits for young people with cancer. Our first major study, a three-month randomized, controlled trial with 375 teens and young adults with cancer at 34 medical centers in the U.S., Canada, and Australia, demonstrated statistically significant improvements in Re-Mission players' self-efficacy (sense of control over their cancer), cancer-specific knowledge, and most importantly, adherence to prescribed treatments.[1]

"A lot of times, we don't really want to take our meds. We're like, what is this doing? Where is it going? I'm tired of it. It's just going to make me throw up. But when you see on the screen and visualize what's happening inside the body and what the chemotherapy is doing, you're not looking at a PowerPoint, and you're not being bored to death by your doctors. You're playing a game and you're being chemo and you're killing your bad cells, and I feel like that's something that a kid could easily relate to at any age."

– 18-year-old Re-Mission Player



PARENTS' CHOICE GOLD AWARD

COMMON SENSE MEDIA LEARNING AWARD 2014

"It feels like you're succeeding in your treatment, and not just sitting around wondering if it's working."

13-year-old ALL Survivor and Re-Mission Player

We learned through research that Re-Mission worked — but how? To answer this question, we compared brain scans in 57 people who were randomly assigned to play Re-Mission or to watch a recording of the game. We found that playing activated brain circuits involved in positive motivation, the same parts of the brain associated with patients' increased adherence to treatments.[2]

"Active participation in game play sparks positive motivation in a way that watching and hearing information does not. All participants in the study received the same information. It was the active participation in gameplay that made the big difference in motivation."

– Steve Cole, Vice President of Research & Development at HopeLab

"The game not only motivates positive health behavior, it also gives players a greater sense of power and control over their disease — in fact, that seems to be its key ingredient."

Steve Cole
Vice President of Research & Development at HopeLab

Reach young people everywhere. The goal of our work with the Re-Mission games is impact — to reach as many young people living with cancer as possible and help them fight for their health. Re-Mission 2 games, our latest installment, are available online at www.re-mission2.org; a free mobile app for Android and iOS (Apple) devices is available through Google Play and iTunes.

"I'm not just shooting something, I'm saving someone."

– 18-year-old Re-Mission Player

"Identifying a direct connection between the stimulation of neural circuits and game play is a key step in unlocking the potential for game-based tools to inspire positive behavior and improve health."

Brian Knutson
Associate Professor of Psychology & Neuroscience at Stanford University

Visit www.re-mission2.org to play and learn more about Re-Mission 2.

Explore our work at HopeLab.org

1 Kato, P.M., Cole, S.W., Bradlyn, A.S., Pollock, B.H. (2008). *A Video Game Improves Behavioral Outcomes in Adolescents and Young Adults With Cancer: A Randomized Trial.* Pediatrics, 122, e305-e317.

2 Cole, S.W., Yoo, D.J., Knutson, B. (2012). *Interactivity and Reward-Related Neural Activation During a Serious Videogame.* PLoS ONE.

HopeLab is part of The Omidyar Group, representing the personal, professional, and philanthropic interests of Pierre and Pam Omidyar. For more, visit www.OmidyarGroup.com.

1991 Broadway Street., Suite 136
Redwood City, CA 94063
Tel. (650) 569-5900 Fax (650) 569-5901

HopeLab