



Fighting for Their Lives

A battle game called *Re-Mission* takes young cancer patients inside their own bodies.

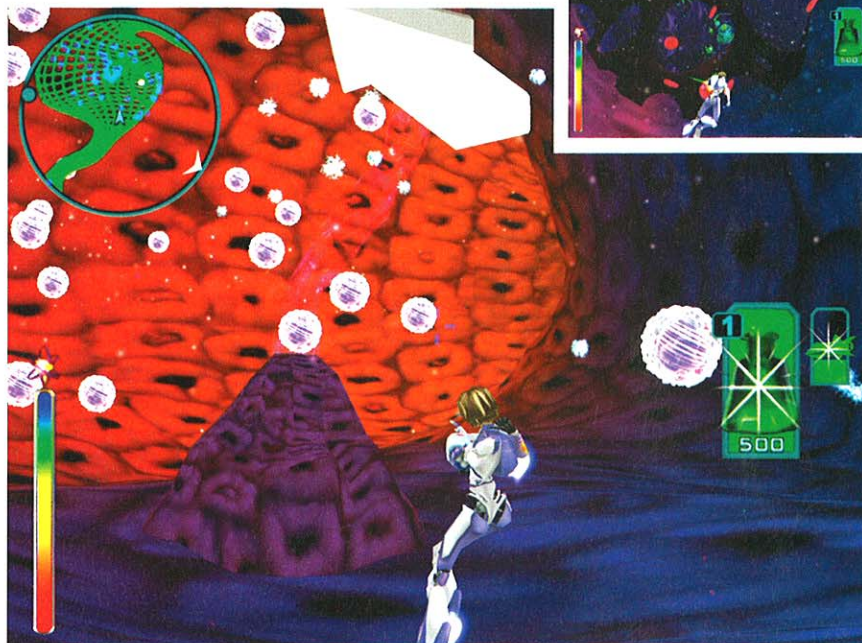
by Pat Christen

It sounds like a scene from the 1966 sci-fi flick *Fantastic Voyage*: A tiny robot swims through a human body, blasting away at rapidly multiplying rogue cells. To young cancer patients, though, it's a way to come to grips with the very real battle taking place inside their bodies. Part of an emerging genre known as serious games, *Re-Mission* is a third-person shooter designed to help young people with cancer cope with their illness.

Cancer turns a patient's life upside down, transforming daily existence into a routine of painful treatments, exacting regimens, uncertainty, and fear. This is doubly true for young people, who already face the challenges of growing up. *Re-Mission* wraps a true-to-life cancer simulation in a gaming interface, helping kids visualize the disease and vanquish it. The aim is to increase players' sense of control over their circumstances.

Players fly a nanobot called Roxxi through a cancer patient's body on missions that range from free-roaming exploration to run-and-gun combat. Along the way, power-ups energize weapons like chemotherapy, radiation, and diet, as well as response to complications like bacterial infection, nausea, fever, and constipation.

Re-Mission was conceived by Pam Omidyar, who came up with the idea in the late 1980s while working as a research assistant in an immunology



lab. After spending the day watching malignant cells multiply under a microscope, she unwound by playing videogames with her husband, Pierre Omidyar, the software engineer who went on to found eBay. It occurred to her that kids with cancer might benefit from fighting the disease in virtual space.

She founded HopeLab in 2001; I joined as president in 2004. We're a nonprofit organization that helps young people with chronic illnesses; we develop innovative interventions and validate them through intensive research. HopeLab researchers talked to kids with cancer about what they'd like to see in a game and consulted with oncologists and biologists to make sure the simulation would be scientifically accurate. Then they got to work.

After completing a prototype in 2004, the team conducted a controlled, randomized clinical trial – much like the way drugs are tested – to gauge the

Serious games: Kids control Roxxi the nanobot as she battles cancer in Re-Mission.

game's effect. The one-year study tracked 375 people in the US, Canada, and Australia; a control group played *Indiana Jones and the Emperor's Tomb*. The goal was to measure the effect on patients' sense of control, adherence to treatment programs, knowledge of the illness, and quality of life. The preliminary findings are promising. Final results will be presented in a peer-reviewed setting in coming months.

In April, HopeLab will begin distributing *Re-Mission* for free in treatment centers and over the Web. We hope this game will be our first effort in a series of unusual approaches to helping sick kids – and a good excuse for teens with cancer to grab the game controller and start blasting away. ▶

Pat Christen (pchristen@hopelab.org) is the president of HopeLab.

What's Your
FAVORITE GAME?

Sid Meier

Director of creative development,
Firaxis Games (*Civilization*)



It changes from month to month, but at the moment a game called *Guitar Hero* that my son and I are playing a lot. It's great for frustrated rock and rollers.

