

## Anti-cancer video game: seriously fun

By Dean Takahashi

Making a big push for serious uses of video games, a Palo Alto non-profit organization is launching a new video game today that will help young cancer patients fight off their illnesses and boost their spirits at the same time.

Going beyond pure fun, the non-profit says it has tested the game with patients and seen a remarkable improvement in how cancer patients take their prescribed medicines and keep up with their treatments.

HopeLab, funded by Pam Omidyar, wife of eBay co-founder Pierre Omidyar, has created Re-Mission. The personal computer game leads players on a series of 20 missions where they play a character named Roxxi, a "nanobot" who enters the bodies of patients and zaps cancer cells. While it has glitzy graphics and high production values, the game teaches "honest and blunt" subjects to kids, such as how to deal with side effects of medication so they can continue taking it.

"It gives kids another tool to hang in there," said Pat Christen, president of HopeLab.

The game fits with a trend dubbed "Serious Games," focusing on the educational or otherwise beneficial aspects of video game technology. At the recent Game Developers Conference in San Jose, the topic commanded two days' worth of sessions, including a number of presentations on "games for health." Most of the games have been experiments to date, but HopeLab's effort is far along.

Pam Omidyar, chairman of the HopeLab board, started the organization in 2001. She thought about combining the effort to fight cancer in teens and children with their love for video games. She pulled together biologists, oncologists and game developers to brainstorm on how they could create an educational tool that would hold the attention of kids.

HopeLab hired RealTime Associates, a video game developer in El Segundo in Southern California, to create a high-quality "third-person shooter" game. Christen said she thought the idea of using a violent action game fit the subject since kids are "literally fighting for their lives."

The game took about 2 1/2 years to develop on a budget of about \$4 million. Then HopeLab commissioned a \$3.7 million study of 375 patients in 34 cities and three countries to get a scientific evaluation of the game. The study showed that children who played the game were more likely to take their medicines and keep up with chemotherapy.

The study found:

- Using electronic monitors to determine the number of times the kids opened their pill bottles, the study found the Re-Mission group opened theirs 15 percent more often.
- The Re-Mission group showed 20 percent more chemotherapy in their blood.
- Measured by a questionnaire, the quality of life increased significantly over time in the Re-Mission group while it declined in the comparison group.

“They took their antibiotics more regularly, they did chemotherapy,” said Christen. “They had higher cancer-related knowledge. The game is direct. It doesn't beat around the bush on topics such as side effects. In the end, it really helped kids get control.”

Re-Mission will be available for free download to a personal computer today at [www.re-mission.net](http://www.re-mission.net). It is free to cancer patients, and the organization requests a donation of \$20 from others on an honor system.

“We think this will be significant for the serious games world to show the power of this technology,” said Christen. Christen said that the non-profit will also look at creating games that can address topics such as obesity, major depressive disorder, sickle cell disease and autism.