



## **Change the World . . . with Your Computer**

### **Thorne Ecological Institute**

### **Joins World Community Grid**

Millions of personal computers sit idly on desks and in homes worldwide. As they wait, every hour hundreds of people contract and die from infectious diseases. While computer owners run their screen savers, millions die from hunger, or environmental disasters devastate whole communities. What if each of the world's estimated 650 million PCs could be linked to focus on humanity's most pressing issues?

To make this vision a reality, **Thorne Ecological Institute** has become a partner of World Community Grid, joining the IBM Corporation and a group of more than 345 companies, associations, foundations, nonprofits and academic institutions. **Thorne Ecological Institute** is encouraging members of the community to contribute their idle PC time to assist humanitarian research by joining World Community Grid at <http://www.worldcommunitygrid.org/reg/ms/viewGetPlatform.do> and then becoming a member of their team: **Thorne Ecological Institute**.

World Community Grid uses grid technology to establish a permanent, flexible infrastructure that provides researchers with a readily available pool of computational power that can be used to solve problems plaguing humanity. Grid technology joins together many individual computers, creating a large system with massive computational power that far exceeds the power of a few supercomputers. Importantly, World Community Grid is easy and safe to use.

To join, individuals should go to <http://www.worldcommunitygrid.org/reg/ms/viewGetPlatform.do> and simply download and install a free, small software program on their computers. When idle, your computers request data from World Community Grid's server. Computers then perform computations using this data, send the results back to the server and prompt it for a new piece of work.

Today, hundreds of thousand of volunteers around the globe are donating some of the time when their computers are on but not in use, and World Community Grid is harnessing this power to help advance promising humanitarian research projects. Results on critical health issues have already been achieved, demonstrating World Community Grid's potential to make significant inroads on a great range of future projects that can benefit the world. (Please see box for World Community Grid's research projects.)

You can start making a difference today. Please go to [www.worldcommunitygrid.org](http://www.worldcommunitygrid.org) and become a member today and then join our team: Thorne Ecological Institute



## Join World Community Grid as part of the Thorne Ecological Institute team today!

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In its first year, World Community Grid ran the [Human Proteome Folding Project](#), which provided scientists with data on how individual proteins within the human body affect human health – important information that will help scientist develop cures for diseases like malaria and tuberculosis. Scientists now have descriptions of 120,000 protein domains that are critical to human well-being; without the benefit of this free grid technology, it would have taken 5 years to get these results, compared with just 12 months on World Community Grid. A second phase of this project is now under way, focusing on a small number of proteins, with a particular focus on proteins linked to malaria, that are key markers for disease diagnosis. Link to project status report: [http://homepages.nyu.edu/~rb133/wcg/rbonneau\\_posts.html](http://homepages.nyu.edu/~rb133/wcg/rbonneau_posts.html)

On November 21, 2005 World Community Grid launched [FightAIDS@Home](#). FightAIDS@Home, which is sponsored by The Scripps Research Institute, is using computational methods to identify new candidate drugs to block HIV protease, a key molecular structure that when blocked, stops the virus from maturing and thus is a way of avoiding the onset of AIDS and prolonging life. Link to project status report: <http://fightaidsathome.scripps.edu/news/vol2.html>

On July 20, 2006, World Community Grid launched an effort that will assist in cancer research using the massive computational power of World Community Grid. The [Help Defeat Cancer](#) project will use World Community Grid to analyze tissue microarrays (TMA) – a new investigative tool that will ultimately help doctors select proper treatments and provide accurate prognosis for cancer patients. [This project has recently been completed thanks to the wonderful support of the World Community Grid partners and members.](#) Link to project status report: <http://pleiad.umdj.edu/IBM/>

In November 2006, World Community Grid launched [The Genome Comparison Project](#), which will perform pair-wise comparisons among and between all genes for all sequenced organisms (from human beings to fruit flies to yeast) and build a database of the results. Because the database will be available to the research community, other scientists will have a huge headstart in understanding what these proteins do, how they play a role in disease processes, and ultimately in understanding how to devise a drug to combat a disease involved with the particular protein in question. Link to project status report: <http://www.dbbm.fiocruz.br/labwim/bioinfoteam/templates/archives/GenomeComparison/progress.html>

In December 2006, World Community Grid launched [Help Cure Muscular Dystrophy](#), a part of the Decryphon program in France. In order to understand how proteins perform their necessary functions in living cells, a better and more detailed understanding of function and protein-protein interactions is required, to ultimately help researchers to design therapeutic strategies. Your contribution to this project will result in valuable information being made available for research that is part of the Decryphon Program. Eventually your contribution will benefit all researchers working on genetic diseases, particularly, neuromuscular diseases. The ultimate hope is that we will help to develop innovative therapies that will lead to treatment for the vast majority of neuromuscular diseases, including Muscular Dystrophy. [This project has recently been completed thanks to the wonderful support of the World Community Grid partners and members.](#) Link to project status: [http://www.worldcommunitygrid.org/projects\\_showcase/hcmd/viewHcmdMain.do](http://www.worldcommunitygrid.org/projects_showcase/hcmd/viewHcmdMain.do)