



# News Fact Sheet

CONTACT: Laura Anderson  
480-552-9020  
[laura.m.anderson@intel.com](mailto:laura.m.anderson@intel.com)

## Intel INSPIRE•EMPOWER Challenge Winners

**April 8, 2009** – Intel has awarded four \$100,000 prizes to the winners of the Intel INSPIRE•EMPOWER Challenge. The challenge called on the developer community to bring forth the most innovative ideas for using technology to solve some of the world’s most pressing problems related to education, health care, economic development and the environment. Details on the four winning projects are provided below.

Additional information about the Intel INSPIRE•EMPOWER Challenge is available at [www.intelchallenge.com](http://www.intelchallenge.com) and [http://www.intel.com/pressroom/archive/releases/20090408corp\\_b.htm](http://www.intel.com/pressroom/archive/releases/20090408corp_b.htm).



### **CellScope: Telemicroscopy for Disease Diagnosis**

**Submitted by Daniel Fletcher, Associate Professor, University of California, Berkeley**

Professor Fletcher leads a research team responsible for the CellScope, a mobile clinical microscopy system for disease diagnosis in developing countries. Millions of people in underdeveloped areas are affected each year by tuberculosis and malaria, and their treatment is hindered by poor clinical infrastructure, including limited access to microscopy. The CellScope project, named by combining “cell phone” and “microscope,” extends the concept of telemedicine to diagnostic microscopy using camera-enabled cellular phones, smartphones, handhelds and netbooks, such as the Intel-powered classmate PC. This technology takes advantage of cellular networks and optical imaging to provide a portable and inexpensive way to diagnose and monitor infectious diseases. The system is capable of on-site disease diagnosis and wireless transmission of patient data to clinical centers for remote evaluation, treatment recommendations, patient management and epidemiological studies. Fletcher is also working on applications of the technology for at-home patient-operated health monitoring in the developed world. Patients going through chemotherapy, kidney dialysis or a variety of blood disorders would be able to perform automated blood counts at home, along with data transmission to their doctor. Additional information about this project is available at [http://fletchlab.berkeley.edu/research\\_cellscope.htm](http://fletchlab.berkeley.edu/research_cellscope.htm) and <http://blumcenter.berkeley.edu/telemicroscopy-disease-diagnosis>.

-- more --

Dan Fletcher is an associate professor in the Bioengineering Department and Biophysics Program at the University of California, Berkeley, where his research focuses on the development of biomedical devices, the study of cell motility in health and disease, and assembly of minimal biological systems. The belief that basic scientific and technological advancements can solve problems and improve quality of life continues to drive his research interests.

### **Great Lakes Cassava Initiative**

#### **Submitted by Michael Potts, Project Director, Great Lakes Cassava Initiative**

Michael Potts leads the Great Lakes Cassava Initiative (GLCI), an innovative pilot program using technology-based education and data communication to help cassava farmers increase food availability and incomes. Millions of families in East and Central Africa rely on cassava as a primary food source, but two virulent diseases – the cassava mosaic disease and cassava brown streak - are wiping out fields across the region. GLCI aims to help 1.15 million farmers identify key cassava diseases, grow disease-resistant varieties and ultimately replant healthy fields in Burundi, Democratic Republic of the Congo, Kenya, Rwanda, Tanzania and Uganda. This pilot project uses rugged, miniature Intel processor-based laptops to enable field agents to automatically send in project data whenever connected to the Internet. The laptops also support remote learning through electronic distribution of training modules on such topics as disease identification and basic business skills. Additional information about the Great Lakes Cassava Initiative is available at <http://crs.org/kenya/disease-resistant-cassava/>.

Based in Kenya, Michael Potts is a senior agricultural advisor for Catholic Relief Services, a U.S. humanitarian agency working to assist impoverished and disadvantaged people overseas. Since December 2007, he has served as director of the Great Lakes Cassava Initiative, a six-country project addressing cassava diseases in Central and East Africa, funded by the Bill & Melinda Gates Foundation. He holds a doctorate degree in Forestry and Soils and a bachelor's degree in Agricultural Botany from the University of Wales, Aberystwyth.

### **Mobile Solar Computer Classroom**

#### **Submitted by Eric Morrow, Executive Director, Maendeleo Foundation**

Eric Morrow heads a project in Uganda called the Mobile Solar Computer Classroom (MSCC), which introduces computers to local schools, many of which have no electricity. MSCC is a solar-powered, mobile computer classroom consisting of a modified SUV, three 65 watt solar panels, one 200 mA battery, a foldable tent with folding tables and chairs and 15 Intel-powered classmate PCs. MSCC visits the same schools every week to provide computer training to more than 100 students a day. The goal of MSCC is to provide students new opportunities in IT and open doors to better paying jobs. This solar-powered computer-lab-on-wheels has been successfully operating in Uganda for the past year. The MSCC has taught about 1,300 students in the first year and close to a hundred teachers. Morrow and his team have plans to open a similar solar classroom in Rwanda in the coming months. Additional information about this project is available at [www.maendeleofoundation.org](http://www.maendeleofoundation.org) or [www.progressafrica.org](http://www.progressafrica.org).

Based in Uganda, Eric Morrow is the executive director and founder of the Maendeleo Foundation, a non-profit organization focused on providing technology education to the local communities with the hope of spurring an African-owned and African-operated computer services industry to boost local economies, decrease unemployment and help alleviate poverty.

Morrow was inspired by a teaching trip to India, where he observed that the computer services industry was helping to develop the Indian economy. He hopes to replicate this trend in East Africa.

### **Rural Livelihood Enhancement**

#### **Submitted by Bibek Chapagain, Clean Energy Group Director, Winrock International**

Bibek Chapagain has proposed a Rural Livelihood Enhancement project to deliver information and communication technology (ICT) services to rural communities in Nepal. Winrock will build ICT service centers in government schools, serving as computer labs for students during school hours and community computer centers during off-hours. To address the lack of grid electricity, these facilities will be outfitted with low-power personal computers and use renewable power from micro-hydro stations and solar photovoltaic panels. The goal of the project is to bring economic development and improve access to energy, education, employment and information in remote areas. They also hope to improve computer and Internet literacy among the young population in the rural area. The project will also address the current overbearing challenge of power cuts in Nepal. Information about Winrock and its projects is available at <http://www.winrock.org/index.asp>.

Bibek Chapagain is the acting director of Renewable Energy Promotion Support Office in Nepal for Winrock International, a nonprofit organization working to empower the disadvantaged, increase economic opportunity and sustain natural resources around the world. He is managing a team of energy and microfinance experts promoting access to clean energy in Nepal. He has been instrumental in engaging the Nepal government to introduce policies to help promote expansion of clean transport options in Nepal. He holds a bachelor's degree in mechanical engineering and a master's degree in engineering management from Northeastern University.

### **About Intel Corporation**

Intel [NASDAQ: INTC], the world leader in silicon innovation, develops technologies, products and initiatives to continually advance how people work and live. Additional information about Intel is available at [www.intel.com/pressroom](http://www.intel.com/pressroom) and <http://blogs.intel.com>.

-- 30 --

Intel is a trademark of Intel Corporation in the United States and other countries.

\* Other names and brands may be claimed as the property of others.