



Duke University-Engineering World Health's Electronic News (volume 5 number 1)

Engineering World Health Repairing equipment, restoring lives

Summer Program Applications Being Accepted



Applications for the 2007 Duke-EWH Summer Institute have already started arriving at EWH headquarters. Some of the applicants are taking advantage of the fact that Duke-EWH now accepts participants from any nation. An American might be scouring Honduras for Quetzal, while Chinese students are in Africa spotting zebra; all of them on their way to helping the poor. Applications are due in January, but early admission is

being offered to chapter members applying before December 1. Considering how quickly the financial aid is allocated, there is a great advantage to applying early. To apply, visit <http://www.ewh.org/summer/application.php>

One-Year Internship in Moshi, Tanzania



Engineering World Health has partnered with Health Care Technical Services in Moshi, Tanzania to offer an unparalleled opportunity for biomedical engineers. Starting in 2007, volunteers can participate in a limited, one-year internship. Interns will get the Duke-EWH linguistic and technical training, and then will be stationed in Moshi working with hospitals throughout northern Tanzania repairing equipment, training hospital staff, consulting in equipment management and making a real difference. To find out more about this exciting new opportunity, visit www.ewh.org and download a summer program application packet.

CUREs Winner Curing Infantile Jaundice

In April of 2006, CUREs awarded its first \$100,000 prize to Vijay Anand (MEM, 2006) for a jaundice treatment device called Photogenesis. With over two million cases last year, neonatal jaundice is one of the most common conditions requiring medical attention in newborns, affecting 80% of premature and 50% of full-term babies. In the US, neonatal jaundice is easily cured by exposing the baby to special lights. However, in the developing world, the light bulbs are too expensive to be replaced, leaving most infants untreated. Without treatment some babies suffer brain damage and even death. Anand and his engineering team at Duke have developed a treatment device that meets the developing world's needs. The device is inexpensive and uses extremely long-life light bulbs. Anand is now in the process of launching a non-profit company to commercialize Photogenesis and spread his cure throughout the developing world!

Projects That Matter Really Matter

Voltaire Dupo of the Daniel O. Mercado Medical Center in the Tanauan province of Batangas, The Philippines, had a problem at his hospital. He had no reliable way of knowing if defibrillators were working—a problem with potentially fatal repercussions.

Dupo took advantage of the EWH Projects that Matter to find a solution. Each year dozens of university students across the country undertake a senior design project with the goal of helping people in the developing world. Project ideas are identified by students from the Duke-EWH Summer Institute and then the challenges are posted on the web. Students select projects from the web site and get them approved by their course instructor at their home institution and then try to find a technology solution. Selected, finished designs are posted on the EWH web site for the benefit of everyone.

One of the designs currently posted on the EWH web site is a defibrillator tester, completed by two students from Vanderbilt University. The small and inexpensive device seemed like the perfect solution to Dupo's problem. With help from EWH, Dupo built the tester and tested his hospital's defibrillators for the first time. As a result, he discovered that two defibrillators had to be pulled out of service. Had those defibrillators been used in an emergency, the patient might have died. Senior design projects really can matter!

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